

THINKING ON THE THEORY OF THREENESS

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FOREWORD by the editor Dr Sarai Robin Charles

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PREFACE

THINKING ON THE THEORY OF THREENESS :
TRIPARTITE ESSENTIALISM – *The Fundamentals of Interstellar Society*

Has been a work long in the making.
From its earliest incarnations as busy-looking notes and scrawls made on reams of foolscap paper with pencils supplied by my father when I was a student and then as more typed distillations of my 'strange' ideas - it does rather seem that it has been round the block. It even having ventured at one point to a think-tank at IBM Hursley in England.

It is not just a general systems theory – it is a unifying general systems theory of physics and metaphysics, and indeed sets out to explain all the things we can socially add to that, before, and after-the-fact, in tripartite terms.

Every conscious being can divide their reality into the most basic tripartite propositions e.g. of; past, present and future, and hence we can arrive at the threeness in and of things in a common-sense sort of way.
Moreover, culturally and historically there is a perception of time and cycles - such things as the 'Three Ages of Man'; i.e. of Youth, Maturity and Old Age within our three-dimensional world of width, length and height, and it may be argued that at some basic common-sense level we at least unconsciously build an internal world or paradigm out of the threeness of such physical things we can readily see, touch and measure and with these measurements we first emerge three-part ingredients of a basic natural language of nouns, verbs and adjectives which we use to describe objects, their processes and qualities in our world.

In 'tripartite essentialism' we have the promise of clarity and physical truth that could not only free humanity to de-pollute and irrigate our world and endlessly supply factories and populations of unlimited size at little cost, but also the promise to lift the burden of working in 'dark satanic mills' (Blake, 1804) by enabling autonomous synthetic intelligence to take our place on the production lines.

Tripartite Essentialism is a general and unifying systems theory that facilitates the codification, condensation, packing and transmission, then unpacking and valid reconstruction of objects and their innate information at their destination.
i.e. we could potentially have the basis with which to evaluate teleportation and so-called '*stargate*' manufacture !!

These things are only made possible by modelling the solution to many of the scientific and logical paradoxes and anomalies that have been keeping human evolution in a cul-de-sac.

Finally, therefore in 2017, the end of that road that I ventured out on so long ago and I hope very much that it is found to be in keeping with, or true to the spirit of the '*Scottish School of Common Sense*'.

"If you only knew the magnificence of the 3, 6 and 9, then you would have a key to the universe." Nikola Tesla

The History Channel - Modern Marvels: Nikola Tesla: Mad Electricity, 2008.

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A.2 AN INTRODUCTION TO TRIPARTITE RELATIVITY - TRE

Andrew Hennessey, born in Edinburgh, Scotland, began investigating relativity and holism in the mid 1970's and by 1991 had formulated many of the concepts of Tripartite Essentialism or TRE., by a process of what he calls 'common sense'. Reid articulated the basic principle of Common Sense Realism:

"If there are certain principles, as I think there are, which the constitution of our nature leads us to believe, and which we are under a necessity to take for granted in the common concerns of life, without being able to give a reason for them — these are what we call the principles of common sense; and what is manifestly contrary to them, is what we call absurd."

Thomas Reid. *An Inquiry Into the Human Mind on the Principles of Common Sense* (1764).

Reid founded the Scottish School of Common Sense.

Andrew draws parallels to Nikola Tesla's 'Theory of Environmental Energy' circa 1900 and also to some of the Logical Atomism of Bertrand Russell also circa 1900. There are, however, schools of thinking whose view is that there can be no such thing as a grand unification theory.

'There is no formula that can deliver all truth, all harmony, all simplicity. No Theory of Everything can ever provide total insight. For, to see through everything, would leave us seeing nothing at all.' JOHN D. BARROW prof. of Astronomy. SUSSEX

The above is the concluding paragraph of a book written in 1991 which seems to hide the light of 'absolute truth' under the bushel of an arbitrary and infinite variety of form. For example; It gives no credence to the Limited Variety of atomic ingredients (118 elements) and rules e.g. (Fajan, c.1920) from which 'Everything' is generated. The limited set of atoms in the periodic table of chemistry and their known rules of interaction could create some general systems theory – a universal theory of all objects in the Macrocosm and Microcosm.

Barrow's nihilistic-sounding conclusions about 'everything .. (is) nothing' therefore categorically exclude the possibility of scientific, social and industrial salvation by a general systems theory.

The proposed Tripartite Essentialism by Hennessey though could be the general systems theory that is needed for a 'space age'.

TRE is both a physical and metaphysical General Systems Theory that is based in Chaos Theory and flux, the natural order of the physical cosmos, and it is also a metaphysics that maps out logically every exchange within and between objects within this cosmic flux at all scales and magnitudes. This metaphysics is rooted in Logical Atomism (Russell and Wittgenstein, circa 1910), and is programmable.

1. THE PHYSICAL THEORY

The physical theory is aether-based i.e. that, universally, everything – every physical object at any and every scale, is comprised of and can be derived from infinitely divisible, infinitely small and turbulent packets of energy. It assumes absolute chaos in everything and contends as in finger-prints, that universally in physical chaos no two objects are identical at any scale. Similar objects are imperfectly seen to belong to a classification of the similar behaviours of similar objects with similar properties. The criteria for attributing an object to a set of similarly behaving but physically different objects is then socially agreed upon.

e.g. Looking at a Nissan car manufacturing plant that has produced an entire yard full of seemingly identical red cars, it can be ascertained by the use of empirical and scientific measurement that variation within the components and finish of each car is Microscopically unique.

The physical theory of TRE – and its particle physics (Harmonic Continuum Theory - HCT) models a solution to the quantum paradox – the collapsing wave paradox. This through a process called 'Emergence'.

In philosophy, systems theory, science, and art, emergence is a phenomenon whereby larger entities arise through interactions among smaller or simpler entities such that the larger entities exhibit properties the smaller/simpler entities do not exhibit.

Emergence is central in theories of integrative levels and of complex systems. For instance, the phenomenon of life as studied in biology is an emergent property of chemistry and psychological phenomena emerge from the neurobiological phenomena of living things.

In philosophy, theories that emphasize emergent properties have been called emergentism. Almost all accounts of emergentism include a form of epistemic or ontological irreducibility to the lower levels.

Although the concept of Microscopic emergence has according to: O'Connor, Timothy; Wong, Hong Yu, in (February 28, 2012). Edward N. Zalta, ed. "Emergent Properties". The Stanford Encyclopedia of Philosophy (Spring 2012 Edition).

- Been decreed not a property of Microscopic systems, this illustrious Stanford encyclopaedia flies in the face of decades of real chaos research at the Santa Fe Institute, by e.g. S Kauffman and his 'Autocatalytic Self-Organising Polymers'.

Contrary to some scientific politics that have emerged in chaos theory, I assert that emergence happens at both the Microscopic and Macroscopic levels.

I would assert this because if Chaos and Complexity is universal then emergence is just as likely to be seen in the red-eye of Jupiter as a vortex as it is in the sudden appearance of Hydrogen atoms in a sealed vacuum by Rowe. 'An Attempt to Restore Classical Physics', 2010 Paul E. Rowe

'Based on the author's experiments and extensive searches in the scientific literature, he concludes that vacuum is not a void, but rather a concentrated matrix of protons and unpaired electrons, possibly Bose-Einstein Condensed (BEC) hydrogen. It may be the aether of classical physics and /or the dark matter, for which Astronomers are searching...'

The causative force behind an ocean of aether being seen to create small particles, is emergence, and my addition to this observation is that our material cosmos operating on three-dimensional principles plus the context of time is manifesting waves and harmonics and that these wave events e.g. standing waves in the case of particles could be measured as such.

This is shown to be the case by the use of acoustic equations from Chladni waveforms e.g.

Professor McBride moves on to multi-dimensional wave functions. Solving Schrödinger's three-dimensional differential equation might have been daunting, but it was not, because the necessary formulas had been worked out more than a century earlier in connection with acoustics. Acoustical "Chladni" figures show how nodal patterns relate to frequencies. The analogy is pursued by studying the form of wave functions for "hydrogen-like" one-electron atoms. Removing normalizing constants from the formulas for familiar orbitals reveals the underlying simplicity of their shapes.

Source: <http://oyc.yale.edu/chemistry/chem-125a/lecture-9>

From a base of chaotically behaving and continually emerging aether comes seemingly out of nothing – a musically behaving standing wave that is both a particle and a wave at the same time.

However it does seem that current Physics is happier with a paradox called the 'collapsing wave paradox'

The idea of the wave function in quantum mechanics and its indeterministic collapse during a measurement is without doubt the most controversial problem in physics today

The "orthodox" theory proposed in the late 1920's by the "founders" of quantum mechanics at Copenhagen - Werner Heisenberg, Niels Bohr, Max Born, Paul Dirac, Wolfgang Pauli, and Pascual Jordan, seems to create an insoluble headache for physics, until at least the 1930's.

The Einstein-Podolsky-Rosen paradox or EPR paradox of 1935 is an influential thought experiment in quantum mechanics with which Albert Einstein and his colleagues Boris Podolsky and Nathan Rosen ("EPR") claimed to demonstrate that the wave function described by Heisenberg does not provide a complete description of physical reality, and hence that the Copenhagen interpretation of the 1920's is unsatisfactory.

The essence of the EPR paradox is that particles can interact in such a way that it is possible to measure both their position and their momentum more accurately than Heisenberg's uncertainty principle allows, unless measuring one particle instantaneously affects the other to prevent this accuracy, which would involve information being transmitted faster than light as forbidden by the theory of relativity ("spooky action at a distance").

This 'entanglement' consequence had not previously been noticed and seemed unreasonable at the time; the phenomenon involved is now known as quantum entanglement. While EPR felt that the paradox showed that quantum theory was incomplete and should be extended with hidden variables.

My HCT definition of 'Quantum Entanglement' would be of two relatively fluid states in resonance with one another with relative variety in appearance and frequency etc being caused by 'constructive and destructive interference' and also a formative pressure of emergence. This latter pushes these particulate musical notes into being as if played on the Cello of the sub-atomic and chaotically turbulent aether

In the view of HCT, however, both Heisenberg's and the EPR explanation is correct. They appear to disagree with each other but miss out on the ocean of aether that makes possible the introduction of the law of emergence, wave theory and resonance.

Heisenberg's uncertainty principle was an attempt to provide a classical explanation of a quantum effect sometimes called non-locality. According to EPR however, there

were two possible explanations. Either there was some interaction between the particles (even though they were separated) or the information about the outcome of all possible measurements was already present in both particles.

The EPR authors preferred the second explanation according to which that information was encoded in some 'hidden parameters'. The first explanation of an effect propagating instantly across a distance is in conflict with the theory of relativity. They then concluded that quantum mechanics was incomplete since its formalism does not permit hidden parameters.

My own Harmonic Continuum Theory, HCT, however would side with Heisenberg in the active interaction and entanglement of two complex particle-wave events by a process known as 'sympathetic resonance'.

Sympathetic resonance or sympathetic vibration is a harmonic phenomenon wherein a formerly passive string or vibratory body responds to external vibrations to which it has a harmonic likeness. The classic example is demonstrated with two similar tuning-forks of which one is mounted on a wooden box. If the other one is struck and then placed on the box, then muted, the un-struck mounted fork will be heard

The EPR idea that there are other bits of hidden information in subtly interacting particles avoids the 'forbidden zone' of the aether and resonance, suggesting a model for these particles more akin to isolated 'billiard balls' made from known clays and of known colours. Here I suggest is an error.

I would agree with the EPR analysis that suggests there would be other hidden variables affecting resonance and entanglement but once the creative mechanism of emergence and its role in the formation of particles from the aether is understood then there would be no mystery in that regard.

The inability of Physics to recognise the chaotic aether and its role has opened the door on a world of irrational speculation.

The claim that an observer is needed to collapse the wave function has inserted an irrational anthropomorphic element into quantum theory, suggesting that nothing happens in the universe except when physicists are making measurements. An extreme example is Hugh Everett's 'Many Worlds theory', which says that the universe splits into two nearly identical universes whenever a measurement is made. It infers that there is a Universe designed to facilitate every possible outcome of every measurement and decision.

In TRE Cosmology though, there is only one reality – as unique as our fingerprints – and because of its harmonic and resonant attributes, its complexity and chaos and observable laws, it is sufficiently explained by the one unifying theory of TRE.

The universe does appear to be made up of chaos and complexity and often, historically, empirical measurements made by e.g. Newton and his laws of planetary motion which appeared to be exact – were superseded by chaos science in the 20th century which showed that orbiting planets on closer inspection were quite wobbly and did not follow the precise linearity Newton had implied but were detouring through minute chaotic wobbles into non-linear journeys. In this case mankind in

Newton's Law of Planetary Motion had been observing a linear 'sketch' of complex processes. E.g. from 2001

Over the last two decades, there has come about a recognition that chaotic dynamics is pervasive in the solar system. We now understand that the orbits of small members of the solar system—asteroids, comets, and interplanetary dust—are chaotic and undergo large changes on geological time scales. Are the major planets' orbits also chaotic? The answer is not straightforward, and the subtleties have prompted new questions.

'Chaos and stability of the solar system', Renu Malhotra, Matthew Holman, and Takashi Ito, National Academy of Sciences, 2001,

Chaos forms such as spirals and vortices characterise the superstructure of our known universe from clusters of galaxies to superclusters.

The Laniakea Supercluster (Laniakea; also called Local Supercluster or Local SCI) is the galaxy supercluster that is home to the Milky Way and 100,000 other nearby galaxies. It was defined in September 2014, when a group of astronomers including R. Brent Tully of the University of Hawaii and H el ene Courtois of the University of Lyon published a new way of defining superclusters according to the relative velocities of galaxies. The Laniakea Supercluster encompasses 100,000 galaxies stretched out over 160 megaparsecs (520 million light-years). It has the approximate mass of 10¹⁷ solar masses, or a hundred thousand times that of our galaxy.

It looks like a couple of bits of *Fucus* spp. seaweed or 'bladderwrack'

As Ray Tomes confirms in 1995 in his Harmonic Theory, that his measurements of redshifts in galaxies demonstrate the harmonic nature of the Macroscopic Universe and its motions in paper RT107 – by W G Tiffit in *Astrophysical Journal* Vol 221 Pg 756-775

'After corresponding with W Tiffit, he has further reported that red shifts of 146-72-36-18-9 km/s and eight other such families have been found. He was of the opinion that this is the result of chaos theory, but I believe that the pattern is exactly in line with my theory and cannot be predicted by chaos.'

And thus as we extend our modelling and analogies – 'as above, so below' we take chaos theory and frequencies and waves into the 'forbidden zone' of particle physics !!

In the analysis of Hydrogen it was revealed that 'Acoustical "Chladni" figures show how nodal patterns relate to frequencies by studying the form of wave functions for "hydrogen-like" one-electron atoms. Removing normalizing constants from the formulas for familiar orbitals reveals the underlying simplicity of their shapes.

If by analogy we see the aether as an infinite un-homogenous 'gas' like air, an energy that is continually emerging and creating 'new particles', then it will for example be emerging new hydrogen atoms into three-dimensional space and

creating a 'gas' pressure between the emergence base and the three-dimensional space into which it is inserting the new particles.

Perhaps a relationship between this particle emergence pressure from interdimensional space, three-dimensional locality and the opposing pressure or constraints by the three-dimensional locality could be measured using the inverse square power law described by Boyle.

Boyle's Law [1662] is a simple gas law, stating that the pressure and volume of a gas have an inverse relationship, when temperature is held constant. If volume increases, then pressure decreases and vice versa, when temperature is held constant.

Boyle's law equations could be a way of introducing measurement into the hidden variables of the EPR paradox if they originate in the process of emergence from the sub-atomic aether..

The chaotic and organic nature of the Cosmos and its resonant dimensions through randomness and high to low transfers of energies and materials is capable of chaotically altering the density of their aethers and thereby occasionally reversing their flow where they connect at a black hole.

The organic and dualistic thinking of HCT about cosmic structure is also illustrated by Hal Haggard and Carlo Rovelli of Aix-Marseille University in France in July 2014 on their research into the possibility of a black hole metamorphosing into a white hole.

'We show that there is a classical metric satisfying the Einstein equations outside a finite spacetime region where matter collapses into a black hole and then emerges from a white hole. We compute this metric explicitly. We show how quantum theory determines the (long) time for the process to happen. A black hole can thus quantum-tunnel into a white hole.'

My TRE cosmology using an organic analogy also predicted in 2004 that such reversals can take place because of blockages in the plumbing in these 'quantum tunnels and loops' ! and that secondary or tertiary matter could be ejected from within black holes. [as opposed to outwith the 'event horizon' (an event horizon, the invisible "point of no return" first described mathematically by the German physicist Karl Schwarzschild in 1916) of a black hole. Matter that gets close to a black hole but remains outside the event horizon is sometimes expelled in violent jets. Such jets, probably originating from an energetic, magnetized, spinning disk around the supermassive black hole, produced the enormous cavities seen in MS 0735]

TRE also predicts that there is no basic 'identical' building block or 'God particle' (Higg's Massless Vector Boson) because objects in chaos and aether are infinitely divisible. We just don't have the scientific apparatus to look deep enough for smaller and smaller particle events. Also the TRE physics predicts that there is no absolute 'Big Bang' and 'Big Crunch', only local events and that because of the Chaos law of 'Emergence' there will be no 'heat death' because Emergence and its process of reconstruction counteracts the Entropy of the Second Law of Thermodynamics.

In the same way that the Santa Fe Institute modelled Chaos and Complexity that then illustrated simple ingredients emerging a complex equilibrium that then homeostatically regulated itself e.g. Kauffman and his 'Autocatalytic self-organising polymers' – I predict that the cosmos itself is a self-regulating homeostatic system that expands and contracts organically as if 'breathing'. Other indications from classical science are that black holes could have rewarmed the early universe. "Black holes have an easier time doing the re-warming than stars because their photons are more energetic," Haehnelt told SPACE.com. Haehnelt presented a model for these primordial heaters on April 13 at the Institute of Physics conference Physics 2005 in Warwick, England.

The TRE physical theory from Hennessey also predicts that atoms and particles organically mutate ,e.g. that they 'evolve, grow, reproduce or die' and that free energy comes from the chaos law of 'emergence' acting on the aether as adjacent sub-atomic dimensions constantly push new harmonically structured turbulence events (sub-atomic particles) into this reality that then become constrained in size by local densities.

TRE theory also predicts that time is a field-effect of mass and that time is equivalent to gravity. I.e. the more gravity there is the more time there is. Further TRE predicts that time is non-linear, that the speed of light is not a constant, but a local phenomena, and that Planck's constant – the alleged fixed distance between shells in a particle is also only local behaviour and not universal. Indeed TRE would assert that there are no universal constants , just locally mutating phenomena recognised to be within certain parameters with certain equipment in a certain time frame. TRE particle theory has all particles from the smallest sub-atomic at all scales as constrained to produce internal structure and be guided in size by activity and pressure within the local cosmic aether.

At this moment in time in the 21st Century, there is every indication from published scientific results that there is a detailed and significant correlation between the physical theory of TRE and the TRE metaphysical process descriptions, and that as a general systems theory – the unity of physics and metaphysics proposed is not based on the arbitrary.

2. THE TRE METAPHYSICS

- a. Semiotics and TRE
 - b. Logical Atomism and TRE
 - c. The Tripartite principle of TRE
 - d. Plichta's tripartite realism
 - e. Reductionism and Modelling with TRE
 - f. Analogy and TRE
- Appendix 1. TRE logic diagrams**

a. Semiotics

In semiotics, a sign is something that can be interpreted as having a meaning, which is something other than itself, and which is therefore able to communicate information to the one interpreting or decoding the sign.

C. S. Peirce, defines the sign as a triadic or tripartite relation as "something that stands for something, to someone in some capacity" This means that such a sign is – in comparison to TRE – very similar.

TRE - Macro : Peirce; **a sign object** (the aspect of the world that the sign carries meaning about)

TRE - Meso : Peirce; **a relation** between the sign vehicle (the specific physical form of the sign),

TRE - Micro : Peirce; **an interpretant** (the meaning of the sign as understood by an interpreter).

Although TRE does not necessarily agree with the intricate classification of phenomenon proposed by Peirce, it does agree with the broad general classification of the tripartite - Triadic signs.

Charles Sanders Peirce (1839-1914) unlike Saussure who approached the conceptual question from a study of linguistics and phonology, Peirce counted as symbols all terms, propositions, and arguments whose interpretation is based upon convention or habit, even apart from their expression in particular languages.

He held that "all this universe is perfused with signs, if it is not composed exclusively of signs". Peirce, C. S., Collected Papers, v. 5, paragraph 448 footnote, from "The Basis of Pragmaticism" in 1906

The setting of Peirce's study of signs is philosophical logic, which he defined as formal semiotic. He argued that, since all thought takes time, all thought is in signs. Peirce believed that signs are meaningful through recursive relationships that arise in sets of three.

Peirce's Tripartite relativity then proceeds to show the similar nature of his thinking to the definitions of TRE.

A sign (TRE- macro) is something which depends on an object in a way that enables (and, in a sense, determines) an interpretation, an interpretant (TRE – meso), to depend on the object as the sign depends on the object. The interpretant, then, is a further sign of the object, and thus enables and determines still further interpretations, further interpretant signs (TRE- micro/qualitative). The process, called semiosis, is irreducibly triadic, Peirce held, and is logically structured to perpetuate itself. It is what defines sign, object, and interpretant in general. As Jean-Jacques Nattiez (1990: 7) put it, "the process of referring effected by the sign is infinite."

However, despite Nattiez, Hennessey appears to have illustrated with a Tripartite Essentialist Knowledge Representation System c.a. 2000 that his repeated instantiation of a TRE proposition of the form; macro concept x [object], its meso concept x [process] and its micro concept x [quality], had exhausted its novelty and uniqueness and diversity and had become monotonic by at most the thirteenth instantiation. I.e. the macro of a macro of a macro of a macro etc may begin as a complex and solid worldly or cosmic system but soon ends up in the domain of particle physics and energy.

Peirce further characterized the three semiotic elements as follows:

[TRE – macro] Object (or semiotic object): that which the sign represents (or as some put it, encodes). It can be anything thinkable, a law, a fact, or even a possibility (a semiotic object could even be fictional, such as ghost particle or spectre); those are partial objects; the total object is the universe of discourse, the totality of objects in that world to which one attributes the partial object. For example, perturbation of Pluto's orbit is a sign about Pluto, but not only about Pluto. Such objects may be:

1. immediate to the sign, a possibility, for instance a word's usual meaning;
2. dynamic, that is, the meaning as formed into an actual effect, for example an individual translation or a state of agitation, or
3. final or normal, that is, the ultimate meaning that inquiry taken far enough would be destined to reach. It is a kind of norm or ideal end, with which an actual interpretant may, at most, coincide.

Peirce explained that signs mediate between their objects and their interpretants in semiosis, the triadic process of determination. In semiosis a first is determined or influenced to be a sign by a second, as its object. The object determines the sign to determine a third as an interpretant.

Although TRE which is Realism does not go into phenomenalism and such areas of the Philosophy of Mind, it does appear to have a cleaner set of distinctions based on natural language itself.

For example – Pierce's Objects are TRE macro/nouns, Pierce's Relations are TRE meso/verbs/processes, and Pierce's Interpretants are TRE micro/adjectives/qualitative assets

b. Logical Atomism

Bertrand Russell's theory of logical atomism consists of three interworking parts: the atomic proposition, the atomic fact, and the atomic complex.

An atomic proposition, in terms of TRE is the a priori logical hexagram that incorporates a snapshot of trends in systemic change described in TRE in Boolean Logic.

An atomic fact is an 'elemental judgement', it is a fundamental statement describing a single entity and recognizes a range of elements within each fact that Russell refers to as particulars and universals

A particular denotes a signifier such as a name, many of which may apply to a single atomic fact, while a universal lends quality to these particulars, e.g. color, shape, disposition.

It is possible to see how with the addition of arbitrary labels such as names in Russell's 'atomic facts' that his theories went into the route of the Philosophy of Mind and epistemology.

TRE and Russell's 'Logical Atomism' though are not that compatible.

The TRE interpretation of Russell's 'atomic facts' is a purely functional one and would describe physical processes, and not utilise 'a posteriori' or after-the-fact names or labels.

Russell's 'atomic complexes' translate into TRE as the interactivity of the atom with its context.

Russell proposes that every system consists of many atomic propositions and their corresponding atomic facts, known together as an atomic complex.

According to Russell, the atomic complex is a product of human thought and ideation that combines the various atomic facts in a logical manner. The TRE interpretation of Russell's logic though is that it is 'after the fact' if it is the human mind projecting and imposing its idea of order. Such order by its very nature as investigated by TRE is innate to the universe, not imposed by a mind-game.

With everything in the absolutely chaotic universe in a state of flux, the most basic, atomic and logical model is a snapshot of an exchange between A and B through some common C with the intercession in natural chaos of at least some D. The three dimensional universe of chaos and flux is absolutely comprised of such atomic and logical exchanges.

The Tripartite Essentialism, TRE, model of the physical universe attributes a series of limited (essentialist) numbers to events taking place between and within objects. The essentialist TRE numbers themselves however are then further related to empirical measurements and Scientific units of measure that delineate the scale and activity of energies, transactions and events within the physical context of each object in flux. A TRE number therefore has information both about the integrity of transactions and also about the physical scale, behaviour and nature of the context of the object it relates to. TRE numbers on their own therefore are merely Boolean

Arithmetic pertaining to a generic logical exchange ABC, but it is the addition of empirical data that creates the specific picture of an objects behaviour and performance.

Nothing we can see or measure is likely at its time1 of anything ever !, but we can agree to start measuring it at a time we call one by taking a snapshot of its integrity. Before we start measuring at time1 – this object or process has already undergone many changes prior to our attention, and indeed as we measure it – it is already in the process of further exchanges and change.

To get a picture of any object in the chaotic and interactive universe of exchanges we must measure it as a process of systemic change – a from and to snapshot. A time1 - start or 'from' picture and a time2 - finish or 'to' picture.

Our 729 'logical atoms' are snapshots of a changing system.

There are only 8 logical ways to describe the integrity of an object or system involved in an ABC exchange at time 1, and at time 2 there are in total 64 logical outcomes that depict the integrity and nature of any ABC exchange, because the 8 versions at time 1 can be one from any other of the 8 at time 2. (8 times 8 = 64) This is Language [T].

By introducing natural chaos and modality into the exchange process, Language [A] there are then a total of 27 state descriptions that describe every possible variation of the integrity of an exchange between two objects ABC at time 1. This set of 27 state descriptions includes the 8 logically real ones of [T], at time 1, but adds a further set of 19 logical (transitional) modalities. Hence at time 2 in an ABCD exchange 27 times 27 produces 729 state descriptions of any exchange in the universe at time 2. This limited and closed set of essentialist arithmetic with 729 (or also 64) components produces a finite number for infinity which enables advanced computation to circumvent the Halting Problem (Turing, Church).

The closed and limited set of essentialist numbers in TRE ie. (64 or 729) that enumerate every possible description of the integrity of an exchange between A and B through some common C, means that there is a finite measuring stick, a scale of relationships upon which to base intelligent computation. A computational system utilising a TRE numbering strategy would overcome the Halting paradox which currently prevents functional Artificially Intelligent computing. It is currently only AI computers that utilise an infinity of object labels that are favoured by public domain industry. As these machines cannot process infinite possibilities they fail to find the significance of the endless labels they are processing and cannot resolve issues. A TRE computer though is not working with an infinity of object labels but a finite and limited set of transactions within all objects – it has no halting problem. A TRE computer is working not with labels but with the elements of objects in the same way that the infinity of the physical cosmos and its endless diversity can be described by the finite number of elements in a periodic table of chemistry.

For every and any event/process therefore there is an ABC exchange with the intercession of some D, between objects and sets of things we agree upon. This logical fact is the most basic component of any exchange in the cosmos and we can say of any ABC(D) exchange that at any time1, part A is integrated and contributing,

or disintegrated and not contributing, or doing neither – basically 1 or 0 or A The same for part B and part C of the ABC(D) exchange between two objects.

What part A, B and C refer to is decided by the observer who supplies the context and empirical values of the exchange being observed. There are many ways that any object or event could be described or observed in the universe in terms of the ABC exchanges it uses in both its internal and external structure, but it is the observer who gives context for event modelling and the physical criteria of the observations.

A logical programming language similar to PROLOG called HX Assembler was developed to enable computer modelling, 'top-down' declarations and instructions and mapping of the physical cosmos, objects and their environments, with TRE metaphysics. This metaphysics and modelling can enable accurate data exchange between very different maps and hence solve a major problem in Artificial Intelligence. That is TRE provides 'isomorphism between domains' – a process that would enable an artificially intelligent machine to use analogies from other kinds of knowledge to solve unknowns in a different problem area.

This Tripartite model at the heart of every object at any scale in the cosmos was further developed into a general systems description that could be universally applied to every object. This is called 6 Keys Systems Theory and with this basic atomic model, every object in the cosmos could be divided into nested zones and its intricacies modelled for computing purposes.

TRE although an R&D project does overcome the major paradoxes at the heart of Robotics; namely the 'Halting problem' (Turing, Church) and also Goedel's 'Logical numbering incompleteness paradox' TRE therefore in a fully developed state would be at the heart of a major industrial revolution in Information Technology.

For the purposes of computation there is a way to represent Knowledge about every Universal object in a Tripartite format of the kind;

1. OBJECT, MACRO (Context measurements and ingredients, what it is - noun)
2. 2. PROCESS, MESO (internal structure – what it does - verb)
3. 3. QUALITY, MICRO (outcome or asset – how it does it - adjective)

By giving every object in our Knowledge Representation database three attributes like these tied into empirical values about its state e.g. milliVolts, MegaWatts etc we can start to create a scientific picture about the performance of objects for computation purposes.

This three part system also maps onto our use of natural language where; Object is a Noun, Process is a Verb and Quality is an Adjective. By using data gathering strategies and criteria like these with 'raw language in the public domain' it is possible to map and model with lots of non-TRE data which would ultimately boost TRE project outcomes.

TRE technology – based on its closed set of essentialist arithmetic could be the basis for a myriad of StarTrek technologies including; teleportation, scanning, long

range cosmic travel, matter transmutation and executive robotics, thanks to a limited and closed set of 'Essentialist Arithmetic' that allows us to surpass the computational cul-de-sac of the Halting Problem discovered by Turing.

c. The Tripartite Principle.

From a set of simple rules, and using the strong analogies generated, this holistic paradigm proposes many sought after answers e.g. to Universal Knowledge Representation from the Microcosm to the Macrocosm.

The format is a Tripartite system - a way of seeing relativity and function in a holistic and also logical way.

These snapshots of fleeting Heraclitean exchanges in our universe of chaos and flux start at a time₁ and finish at a time₂

Whereas the Tripartite logic of [TRE] is the 'bones' that illustrate the snapshot - the nature of an exchange or transfer of energy and/or matter between a beginning state and an end state at a given time, the further representation of the 'flesh' upon those bones is a synthesis of physics that takes our TRE logic into the realm of the empirical.

e.g. our empirical measurements of flux in the natural world and cosmos can be said to incorporate a snapshot of relativity between and within the physical processes of the objects that we are measuring.

In physics, such relativity is known as a power law.

More than a hundred power-law distributions have been identified in physics (e.g. sandpile avalanches, gravity, planetary relativity), biology (e.g. species extinction and body mass), and the social sciences (e.g. city sizes and income). Ref.

Andriani, P., & McKelvey, B. (2007). Beyond Gaussian averages: redirecting international business and management research toward extreme events and power laws. Journal of International Business Studies, 38(7), 1212-1230. doi:10.1057/palgrave.jibs.8400324

It can be seen that historically, making observations about reality that recognised an inverse proportional relationship of some sort of the type as one thing increases another will diminish in proportion' has centuries of tradition.

In proposition 9 of Book 1 in his book *Ad Vitellionem paralipomena, quibus astronomiae pars optica traditur* (1604), the astronomer Johannes Kepler argued that the spreading of light from a point source obeys an inverse square law:

In 1645 in his book *Astronomia Philolaica ...*, the French astronomer Ismaël Bullialdus (1605 - 1694) refuted Johannes Kepler's suggestion that "gravity" weakens as the inverse of the distance; instead, Bullialdus argued, "gravity" weakens as the inverse square of the distance.

By 1687, Newton's '*Principia*' acknowledged that Hooke, along with Wren and Halley, had separately appreciated the inverse square law in the solar system.

An inverse-square law generally applies when some force, energy, or other conserved quantity is evenly radiated outward from a point source in three-dimensional space. Since the surface area of a sphere (which is $4\pi r^2$) is proportional to the square of the radius, as the emitted radiation gets farther from the source, it is spread out over an area that is increasing in proportion to the square of the distance from the source. Hence, the intensity of radiation passing through any unit area (directly facing the point source) is inversely proportional to the square of the distance from the point source. Gauss's law is similarly applicable, and can be used with any physical quantity that acts in accord to the inverse-square relationship. Ohm's Law upon which our entire understanding of electricity is based is an inverse square power law.

Here are some readily available examples of power laws from e.g. Wiki, across the broad spectrum of science, the Microcosm and the Macrocosm.

The distributions of a wide variety of physical, biological, and man-made phenomena approximately follow a power law over a wide range of magnitudes: these include the sizes of craters on the moon and of solar flares, the foraging pattern of various species, the sizes of activity patterns of neuron nets, the frequencies of words in most languages, frequencies of family names, the species richness in an ancestral line or 'clade' of organisms, the sizes of power outages, criminal charges per convict, volcanic eruptions, and many other quantities. Few empirical distributions fit a power law for all their values, but rather follow a power law after a fashion. Acoustic attenuation follows frequency power-laws within wide frequency bands for many complex media. Allometric or body-mass scaling laws for relationships between biological variables are among the best known power-law functions in nature.

The equivalence of power laws with a particular scaling exponent can have a deeper origin in the dynamical processes that generate the power-law relation. In physics, for example, phase transitions in thermodynamic systems are associated with the emergence of power-law distributions of certain quantities, whose exponents are referred to as the critical exponents of the system.

In Astronomy, Newton's law states:

The gravitational attraction force between two point masses is directly proportional to the product of their masses and inversely proportional to the square of their separation distance. The force is always attractive and acts along the line joining them.

The force of attraction or repulsion between two electrically charged particles, in addition to being directly proportional to the product of the electric charges, is inversely proportional to the square of the distance between them; this is known as Coulomb's law.

In physics, Gauss's law, also known as Gauss's flux theorem, is a law relating the distribution of electric charge to the resulting electric field.

In acoustics, the sound pressure of a spherical wavefront radiating from a point source decreases by 50% as the distance r is doubled; measured in dB, the decrease is still 6.02 dB, since dB represents an intensity ratio. The behaviour is not inverse-square, but is inverse-proportional (inverse distance law)

In field theory - generally, for an irrotational vector field in n -dimensional Euclidean space, the intensity " I " of the vector field falls off with the distance " r " following the inverse $(n - 1)$ th power law.

Tripartite Essentialism is based upon the field theory notion that there is a continuous relation between one system and another through a common medium. i.e. A to B through some common C.

As relationships between systems get progressively more complex, however, other processes attenuate the exchanges. Hence the clean dispersion of energy one could see with the Gaussian effect in electromagnetics becomes a more complex affair with biological osmosis.

The 'Biological osmosis' analogy of some bigger energy concentration donating to a lower energy concentration through the intermediacy of a common medium of relativity is not only found in biology in terms of water and salt but also in terms of galaxies and black holes.

Universally, therefore, from within an umbrella of high potential e.g. the potential difference between one site/event and another, energy passes or diffuses or discharges from a site of higher energy to one of lower energy and by that process creating and contributing to the potential for another emergent system.

Easily measured in a simple format - as electricity, this 'TRE' power law is known and measured in more complex, compound and crystallised (telic) energy substrates and organised and self regulating aggregates of matter. e.g. in psychological systems, which are relatively abstract systems (in comparison with a copper wire), the discharge of motivation has been measured as a power law by Lewin [1925] - unconsciously using a Tripartite principle. Kurt Lewin has developed this as a 'Field Theory in Psychology'

The Trigram is a basic Boolean Logic representation of a metaphysically continuous relationship between any two systems: denoting the validity of a discharge of energy from one system of a higher, to another of a lower potential through a common substrate plus an indication of how that relationship is changing or tending to change..

Whatever the symbol set used to denote the three categories - it can be a whole line or broken line, 1 or 0 or letter or symbol or some other; The upper line is for the purposes of TRE to be denoted 'Macro' which represents the origin of the discharge: from the most high energy object or ingredients.

The middle line, denoted 'Meso', represents the substrate or common medium through which the discharge takes place

The structure and mechanics of any interstitial (Meso1) process capitalise on and are ontologically driven by the contextual and environmental discharge from the context1 and Macro1 into the site of systemic evolutionary activity. - the Micro1.

In complex systems in the natural cosmos, the Micro, holistically extends and invests into some other (different) Macro of another system in the context (Macro 2) with time.

This extension can be regarded as deterministic relativity in continuous operation. The evolutionary result is a system that has absorbed from the first system - but contextually related to the emergent needs of a second system that may have created superior environmental impact, stresses, demands and emergent processes to the first context (Macro1) in time.

The Micro1, the bottom line of the Trigram, represents the site of discharge of the Macro1.

The field relativity between Macro1 and Macro2 can be described by a power law called the inverse square law $U @ 1/R$
The more the power and influence of Macro1 increases, the more the power and influence of Macro2 decreases. etc.

This power square law, is a unifying and universal equation seen in; gravity, particle dynamics, cycling in ecosystems (predator/prey relativity), deterioration with distance of all sorts of electromagnetic phenomenon in three dimensions, and most obviously described by electricians and physicists as Ohm's Law and by Chemists as Fajan's Rules.

In electrical equations, Volts, Ohms and Ampere's depict this transaction at a fairly simple level of molecular investment, mass, scale and complexity.

Where V or voltage represents the energy potential difference between Macro1 and Macro2. across which a discharge, exchange or transference flows from higher to lower energy values.

R, represents the resistance of the intervening substrate, (Meso) to the passage of the discharge, and the evolutionary asset (Micro) is the amount of energy delivered to the site of competition where evolution works itself out at the boundary between two different systems - The energy carried through system1 discharges at Macro2.

$$\text{MACRO}=V, \text{MESO}=R, \text{MICRO}=I$$

In Biological conditions, the analogy to this physics equation sounds like, 'If the V, food and conditions are good, the physical difficulties of properties in the landscape R, i.e. its topography disposition and systematic organisation etc.

[Meso], diminish :

then the evolutionary asset is an increased population.

The flow from high to low across a common mediating and impeding middle can be easily modelled.

Teleology (from Greek telos, meaning end or purpose) is the philosophical study of nature by attempting to describe things in terms of their apparent purpose, directive principle, or end goal.

Natural teleology, common in classical philosophy but controversial today, contends that natural entities also have intrinsic purposes, irrespective of human use or opinion. For instance, Aristotle in *Metaphysics* 1050a9–17 claimed that an acorn's intrinsic telos is to become a fully grown oak tree.

Though ancient atomists rejected the notion of natural teleology, teleological accounts of non-personal or non-human nature were explored and often endorsed in ancient and medieval philosophies, but fell into disfavor during the modern era (1600-1900).

d. Plichta's Realism.

Peter Plichta, Industrial Chemist, Inventor Mathematical theoretician and Nobel Prize Winner in his 1997 book published by Element called 'God's Secret Formula' gives us his vision of the mathematical nature of threeness running through all life. It also relates one of the most compelling arguments for natural teleologic and threeness that it is possible to see.

His insight into the elements of the periodic table, their threeness, and how this intrinsic mathematical threeness appears to have a direct impact on the nature and structure of life itself is based on years of industrial research chemistry.

Plichta relates that there are in fact only 81 stable elements, and that although this number is usually given as 83 to include the highly unstable and non-natural, 43 – Technetium, and 61 - Promethium, it is in fact the case that three to the power of four i.e. 81 is sufficient to account for all the stable and natural elements.

The other categories of naturally radioactive and exclusively artificial elements are not for the purposes of life or nature, stable.

e.g. Unstable elements 90 and 92 for example break up through three radioactive processes of; alpha, beta and gamma radiation into three stable isotopes of Lead.

At normal temperatures all 81 stable elements are either one of three states; solid e.g sulphur, or liquid e.g. mercury, or gas e.g. nitrogen.

Even the elements in the main group have 3 categories;

Non-metallic e.g. oxygen

Metalloid e.g arsenic

Metallic e.g. lead

The elements bond with each other in three ways;

Ionic bonds e.g sodium chloride

Atomic bonds e.g. methane

Metallic bonds e.g. brass

Organic chemistry is based on carbon and a few other elements, and carbon can form three types of bonds

Simple bonds
Double bonds
Triple bonds

In the entire cosmos, there are only three elements capable of forming these three types of bonds.

Carbon
Nitrogen
Oxygen

Matter has three forms, solid, liquid and gas and these can be reduced to three basic dimensions length or distance, mass and time.

Life is an ecosystem of three types of existence, plants, animals, humans
Or; plants, unconscious, conscious or higher life.

Other innate threeness in Humans e.g. three colours of cones in the human eye.
And plants manufacture monosaccharides and polysaccharides and protein which drive the ecosystem of e.g. herbivore, carnivore and omnivore.

The Carbon cycle at the heart of the ecosystem is driven by the three elements unique in the universe that form double bonds C N O, and their high energy catalysts in the metabolism of life; chlorophyll, haemine and cobalamine

Plichta's Prime number ontology explains why electrons have four quantum numbers and atoms only three components and it can be seen by more than arbitrary rationale that this set of numerical relationships between three and four play out in a special way to derive the number of stable elements upon which the cosmos of light matter is based.

Within the nature of three dimensional matter itself, our empirical measurements have revealed that the maximum number of atomic electron pairs in electron shells; 1, 4, 9, 16 the square of 1, 2, 3, 4,

The square law is numerically anchored in the atom itself and therefore in the whole of nature and we have seen this in power law relationships in both simple and complex systems from physics, biology, cosmology to economics and psychology.

When Plichta discovers that the stable elements find order and logical series in their and have mathematical symmetries arising out of prime numbers, using his 'Prime number cross' he can then predict prime number series at work in complex molecule formation such as DNA.

The relationship between three-ness and four other components arises directly out of the innate mathematical symmetries in the nature of matter and the prime numbers.

Plichta uses his ontology to predict an infinite fourth dimension around the three dimensions of matter, although in so doing he appears to model a sealed system of light matter into which nothing else can enter or ever leave.

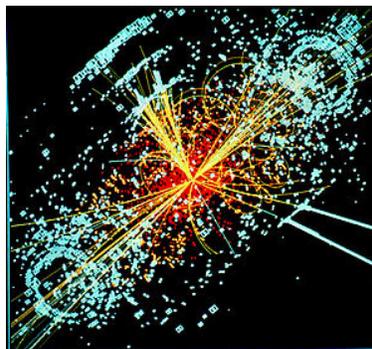
Such mathematical processes and relativities as squaring and enumeration are (eternally and universally) before the fact, but it is our human synthesis, our after the fact interpretations which could lead us into error.

e.g. 'If infinite empty space always has a quadruple structure because the world is always two-dimensional squared at every point – the four quantum numbers of the electrons must in fact be a geometrical necessity – whereas this has so far only been empirical knowledge derived from experience.'
[Ibid. p.109]

TRE does not hold that our cosmos is such a sealed light matter system.

It might be though that although the four quantum numbers arise out of the nature of squaring and power laws in this dimension, that Plichta can only explain by mathematics what he sees in an after the fact way. He does not hold that the activity of chaos and emergence on whole classes of as yet formally unrecognised material processes within sub-atomic states of energy and aether have produced the relativity of these quantum shells. Even their relative distance by sub-atomic wave theory and frequency in relation to the rate of emergence and influx from other triple-aspected components of the cosmos e.g. Light, Opaque and Dark matter, Plichta emerges out of frequency and wave theory. Plichta does though admit that classical particle physics explanations of transverse and longitudinal waves appear fictitious – especially when you can have waves allegedly propagating without a medium of propagation.

Plichta's analysis of the allegedly solved issue of the 'Particle Zoo' which shows many temporary and indeterminate particles that are supposed to be intermediate forms of mesons e.g. ghost mesons, etc are that these are Hybrid particles, merely temporary energy events and like the nice picture of the so-called 'god particle' - generally particle images are actually image artefacts.



credit: 'the god particle' wikimedia commons

For example how could there be contrasting 'empty space' around a 'god particle' which is allegedly supposed to be the smallest thing ever etc The inference is that the space around the alleged 'god particle' is nothing. Literally nothing, although it has time, space and distance.

Meanwhile, the triple aspected atom; proton, neutron and electron with the 3rd part, the electron, having a quadruple nature, is part of Plichta's prime number paradigm. He states that 'Basic multiples of the prime numbers 1, 2 and 3 in electron shells, isotopes etc illustrate why all countable matter has the same triple nature...'

Similarly at a molecular level, DNA is triple aspected with phosphoric acid, sugar and base and there are 4 bases.

Kauffman at the Santa Fe Institute also demonstrated that DNA molecules can assemble themselves out of basic ingredients and then emerge out of this complex system a self-regulation equilibrium. E.g. Kauffman's '*Autocatalytic self-organising polymers*' research into DNA at the Santa Fe Institute.

Plichta's defines his theory with a Tripartite Relativity proposition [macro, meso and micro are TRE inclusions]

Macro- matter and space

Meso – energy and time

Micro – quantity and numerical sequence

Where matter and space are the umbrella of substrate which utilise the processes of energy with time which conscious life can then use as the qualities and assets of quantity and numerical sequence.

Plichta discovers universal symmetry and order and threeness in a quite deterministic manner, uncovering in chemical and physical and mathematical processes the absolute logical certainty of the ordering of the elements, their shells and components. Although it is an order without aether, and emergence, and dark opaque and light matter, and other TRE assumptions, Plichta's description of the mathematical necessity behind chemical and biological order in light matter are groundbreaking.

His perceived relationships of the prime numbers in action within his many scientific disciplines present us with a vision of the cosmos that is rationally explained and assembled in almost all ways.

That said, without an explanation of aether, chaos and emergence and a more sophisticated complex systems homeostatic equilibrium (order out of chaos example) to model than the 'Sierpinski triangle', it is possible that he may not like the idea that in a chaos-driven, cosmic, multidimensional weather system from forces within; light, opaque and dark matter, his wonderful idealistic explanations of atomic and particle formation could be attenuated by other impinging phenomenon.

Peter Plichta though remains an incredible exponent of a new and truth-filled rationality. With his mathematical certainty he has illustrated what relationships there are within material forms especially in the microcosm.

TRE though will provide a model for How these elements come to be and explain why and how there could be deviations within this picture of universal and mathematical perfection presented by Plichta.

The triple-aspected nature of teleology within Plichta's research unfolds from the threes and sixes of the complex sugars right through to the such three-ness and six-ness manifesting in the forms of e.g. the insects.

An insect's life runs through three stages – egg larva insect
Its body head thorax and abdomen thorax have 2x3 wings and legs

A flying insect's head is in six segments with hexagonally faceted eyes, the Insects armour or chitin is a sugar from the 6th element carbon and this sugar has a special molecular structure with a hexagonal form

e.g. the three-part torso of the bee and its form manifesting within or emerging from the mathematics of six-carbon-ring sugars which it also produces as a foodstuff or energy source and stores in hexagonal hives

Although Plichta's 'mathematical determinism' - his mathematical schematics that for every event there exist conditions that could cause no other event, it is probably better from a TRE standpoint to assert that although in Plichta's case he has simply and beautifully described the mathematical properties of ordered matter he offers no explanation as to what can cause the irrational anomalies and events that can interrupt this 'Divinely ordered' paradigm, or even why contemporary physics measures and uses waves without conceding a medium of propagation for them. Plichta's 'Philosophical realism' a belief that some aspects of reality are ontologically independent of our conceptual schemes, perceptions, beliefs etc is clearly valid, but it does not show the full picture.

TRE ideas were arrived at not through research into prime number relationships within the periodic table, but by the observation of systems and processes in the empirical world by; analogy, conjectures, induction and deduction. This is why a general systems theory for chaos behaviours would benefit Plichta's research, as with it, there can be an explanation for elemental behaviour and the sub-atomic in the microcosm that is also consistent in the macrocosm. E.g. wave theory, chaos law of emergence etc

e. TRE Reductionism.

The art of reducing language and stories about complex systems into simple symbolic logic, which can then be unpacked from simplicity at a later date has a big debate surrounding it within the Philosophy of Science about the nature of the arbitrary and of the meanings we can be sure of i.e. what is signed and what that actually can be seen to mean .. 'sign to thing signified'

There follows a Sentential Logic depiction of Tripartite constructs or synthesis and their possibilities for evolutionary modelling utilising e.g. power law relationships.

The Macro is the substrate S from which the discharge towards emergence E at the Micro occurs in the context T of time and space.

At the next telic level of organisation, this extant ergonomic system becomes aligned A in time and space with a format evolved from S and the context T.

The symbol @ = directly proportional
 Delta T is a change in time from e.g. time1 to time2.

The system comprising S, A and T further evolves at t2, when it; competes, emerges and improves its emergence E parameters Ez in context T, or fails.
 GH Lewes (1875, p412) states of emergents (such as the new z in Ez)

‘with emergents, when, instead of adding measurable motion to measurable motion, or things of one kind to other individuals of their kind, there is a co-operation of things of unlike kinds’

The establishment of a new transfer gradient by adaptation to a new evolutionary pathway A at the expense of old emergence pathway E.
 The Macro Substrate and context is combining emergence product E with A in some time T to get Ez.

Context (time) T (t1) where [T and not T = RAA]

New Substrate S, (-S) -> (A @ E)
 New Adaptation A, (-A) -> (E) v (Ez) at Delta T
 Emergence E, (-E) -> (T) @ (Ez) v (-A) v (S) v (-S) v (-T)
 at Delta T

The basic Trigram and context either have or have not structural identity whenever the underlying function is valid in relation to the context.
 i.e. some form of competition may disintegrate the function of the system’s three attributes : Substrate/Macro = S,
 Adaptation/Meso = A
 Emergence/Micro = E

i.e. (Sx, Ay, Ez) have structural integrity, and (S,A,E) do not -

The eight essential TRE states can be generated from synthesis that utilises the ‘a priori’ diagrams.

T, (time1/context).

S	S	S	S	Sx	Sx	Sx	Sx
A	A	Ay	Ay	A	A	Ay	Ay
E	Ez	E	Ez	E	Ez	E	Ez

These binary tripartite diagrams e.g. (S, A, E) encode without reference to undecided states or modalities the integrity of absolutely all the logically real state descriptions possible during a process of exchange in this given context.

Where E is either Emergent or Demergent evolutionary asset depending on the Competitive process with respect to the context delta T.

i.e. (t1 - t2).

Modelling of the Boolean descriptions by this type of meta-language can bring complex empirical concepts represented within this knowledge representation system into the realms of mathematical computational logic.

Diverse domains of knowledge each, with their own processes of exchange, could thus be empirically charted using the [TRE] transaction model and relate the world of domain labels to the empirical measurements of success or lack of it within the transference gradient and the physical description of its processes and function..

The [TRE] Knowledge Representation System, more fully described later is called the Tripartite Relativity (Essentialism) Expert System or [TREES].

In natural language, the concepts of an 'object', 'doing' some 'qualitative descriptor' can also be translated into this tripartite metaphysical system.

The Linguistic tuple of noun, verb and adjective are also directly related to the Tripartite Essentialist ideological framework:

where Macro is the noun, that is, the object system and its fabric. Meso would be the verb, that is how the fabric is deployed and operates in an active and existential sense, and the Micro would be the adjective, that is how the system would be depicted, its qualitative performance in relation to some other system Macro2.

The compilation of a periodic table of relative activity of states, between highly active, transitional and diverse, to most stable can be achieved here also.

Other modelling by Langton C, and Kauffman S, demonstrate the emergence of complex self regulating systems amongst transitional states at the edge of chaos. [Levy S, pub. Penguin 1993, ISBN 0-14-023105-6, pages 108-112 & 135-137]

at time1

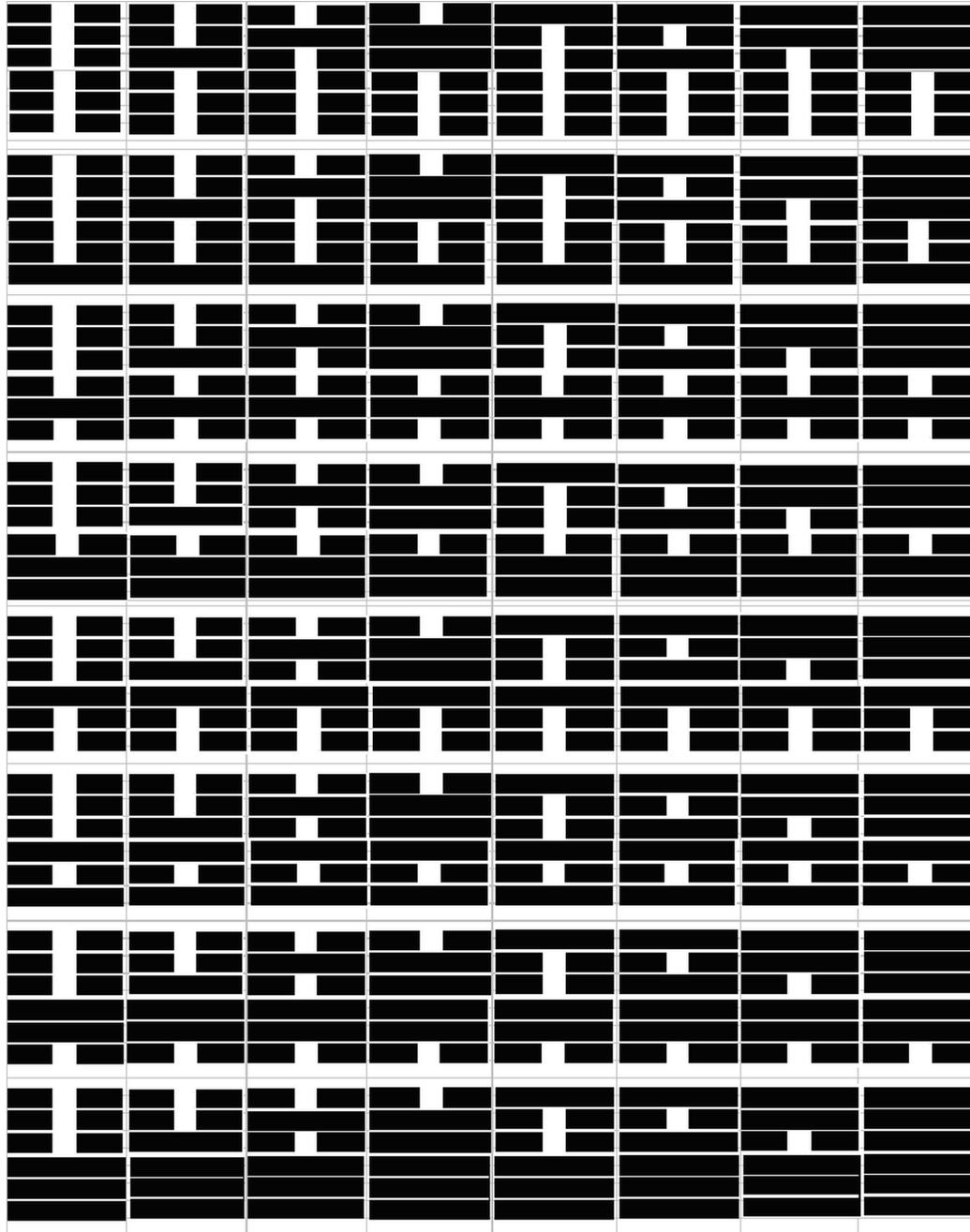
000, 001, 010, 011, 100, 101, 110, 111 depict all the states of logically real [non-modality] functional integrity, however there are 8 times 8 possible snapshot descriptions of a transforming object with time.

Eg. 000 000 000 000 000 000 000 000
000 001 010 011 100 101 110 111

001 001 001 001 001 001 001 001
000 001 010 011 100 101 110 111

010 010 010 010 010 010 010 010
000 001 010 011 100 101 110 111 etc

There are 64 such logical sixes within this Closed and Limited set. – called the Language [T]



This Logically and Formally Complete set of functional relativity as events: can be depicted as a Periodic Table of Energies [PTE] and as a simple model of the presence of chaos and structure - (it could be a simple 'Instrumentalist analogy' cf. Duhem, [1952] to the Periodic table of Chemistry) etc. Transitional self-regulating complex activity within interstitial states in flux within chaos and structure were also modelled in Biology by Langton, Kauffman and Goodwin. [Levy, 1992]

The epistemological status of Tripartite Relativity and its one basic field 'law' i.e. the inverse proportion law, that ties it into the operation of 'natural' and universal processes, comes from a continuous tautological relation between the components of the three-part system and their context: a discontinuous relation in this sense is a reductio, since it implies no relativity and hence no measurement or phenomenon. i.e. TRE relativity is 'a priori' valid.

The primary quality of Tripartite Essentialism [TRE] is energy transaction.

The ergonomic status of all systems is not fixed and is subject to arbitrary change or the rearrangement of the sets of atoms that comprise the system. The phenomenon of change gives rise to the secondary qualities associated with the primary quality of flux.

For example the primary quality of Ohms Law generates the secondary quality of light and heat.

The emergent properties of flux can be defined in terms of: the property of the whole being produced by the properties of the parts, and that these emergent holistic properties derive from the whole structure and its context.

f. The Importance of Analogy.

The premise is that all complex systems can be modelled using a biological systems analogy.

Osmosis from biology is assumed as a general truth at all scales of magnitude in the microcosm and macrocosm ..

Osmosis is the spontaneous net movement of solvent molecules through a semi-permeable membrane into a region of higher solute concentration, in the direction that tends to equalize the solute concentrations on the two sides.

It can be used as an analogous modelling strategy at all levels of material complexity from the atomic rules of Fajan, the electronic rules of Ohm (discharge from high potential to low potential), to the psychological rules of Lewin.

Osmosis is a biological term used to describe the active transport of solvent etc from an area of high concentration to an area of low concentration through a semi-permeable membrane.

The basic premise is that any system is a 'membrane' between two others. This Meso role identifies the membrane as the attenuating artefact in the process.

The structure and mechanics of which pass on the 'discharge' to the site of systemic competition.

Energy flowing into or being fed into the locus of components that comprise a Tripartite system finds a condition of impedance to its flow; where the original

stream becomes transmuted or metabolised into those substances or effects which maintain the system's function, whether biological or physical.

Given a consistent, qualitative flow, the structure can specialise on the resources of its input to exploit systems, (i.e. metabolise, compete, grow and reproduce etc) ever more different and incongruous to the energy system from which it emerged. This factor is dependent on the stress imposed externally at the site of competition between this system and its context and the competing context into which the ergonomic 'discharge' is directed - for example in the story of the prehistoric evolution of amphibians where the developing respiratory mechanism of the organism enabled the exploitation of new habitat and context on the shore - this adaptation, initially, may have often failed under the critical stress of lack of humidity and high temperature.

In using biological concepts as tools to interpret more general physical systems, it becomes easier to visualise Tripartite systems living in habitats, eating, metabolising and competing in a world readily accessible to the senses, and in this way, the energy that is being processed and competed for, may be more easily tracked in terms of a biological analogy through the very accessible concept of organic holism.

A system becomes a system when a group of bounded components are used consistently to receive and process energy. If consistency develops, it is because there is a context or input that caters for the collective needs of this group of components.

In the Macrocosm, e.g. in a fish, after feeding, the organs metabolise the input and distribute the metabolites to every part of the organisation and organism where they are used in the process of growth, competition or maintenance.

Speaking more abstractly; this structure and mechanics or, supporting mechanism or metabolism, is an energy-distribution infrastructure, as often seen in civilisation as it is at the superphysical level.

[Smith A, 'An enquiry into the nature and causes of the Wealth of Nations', 1776] - where fine tuning of a welfare (public interest) economics strategy with the systemization of economic and industrial benefits around the strategies of the open market allegedly produced a viable society. Industry and Society and Individuals who obtained the most benefit for the least cost allegedly would be 'selected for' in terms of a social and biological Darwinism. i.e.

A selection of the most efficient organisation. (as opposed to organism).

In treating Civilisation as part of the set of Organic Holism, it too has a brick and mortar body powered by the metabolite of electricity obtained in the competitive jungle of Capitalism.

The context of a Civilisation is its minerals, resources and materials and the processing capacity of the system itself is dependent on the efficiency of emergent tools, artefacts, processes and information with which raw materials are exploited e.g. farming, mining, factory and processing technology.

Thinking organically about society .. The 'heart' of the nuclear reactor, pumps sustenance along the veins and arteries of its power cables, and cognisant ganglia

of the stock exchanges allocate lines of trade and communication, where secondary Capital metabolites are shipped through the enormous organic system of the infrastructure in a quest for sustained growth and competition for available resources according to stimuli or Labour Market Intelligence.

As in a biological system, the technological system processes and reprocesses raw input through a chain of useful and cumulative effects, investing time, capital and utility in these metabolic products.

The evolutionary assets of a Civilisation are information based, where the management and control of information leads through policy and science to the maximisation of output, for the minimum of input.

Sustained growth and metabolism, a necessity in an entropic environment can only be maintained by the maximisation of inputs as a whole, and since the natural and universal power law is involved in the demographic and ergonomic cycles of growth and decay, the exponential demand on resources made by exponential consumption can only be maintained by correct and competitive scientific advance.

At this level of complexity, the Osmosis analogy includes many more sets of artefacts, systems and formats into which the energy discharge of the context Macro has been encoded.

Here are a few more examples of 'Tripartite Relativity' .

Three parts and a context.

i.e. Context and Macro: CMacro, Meso, Micro. that use analogies to describe systems both in general terms but also in physical and empirical terms. These ideas use the biological 'osmosis' model to illustrate the transaction process between high energy objects and systems to low energy objects and systems.

Food, has as its context the Sun, which powers the green cycle whose Meso DNA and coding for systematic organism turns the available Carbon, Nitrogen and Phosphor in the Macro into the Micro asset of Carbohydrate Sugars and Oxygen needed to sustain the plants.

This series of trophic and vegetational cycles produce a complex ecosystem and food web which becomes the Macro that supplies components to another inhabitant, Man.

Man extracts for the benefits of the gastronomical structure and mechanics of Man, [his Meso] energy packets of variable quality and quantity.

His kitchen receptacle, when examined holistically with Tripartite Relativity has a Macro or function that suits it for the context of the kitchen in design and purpose.

The size of the bowl, the energy facility of the umbrella that it provides to sustain its utility - the Macro or utility for the conveyance of fruit is dependent on the Man's social context.

The Meso of the bowl is basically its components and structural constituents, e.g. molecular and crystalline integrity and tolerance etc, and the Micro of the bowl, basically, its evolutionary assets are its qualitative aspects e.g. if the purpose of the bowl was solely general utility, then plastic is an asset to enable continuity of function; if however, its quality is not selecting it to attain conditions of continual use e.g. porcelain bowl at a banquet may be more acceptable, then the Micro of the bowl is dependent on context conditions both qualitative and social and the amount of psychological pressure its system can 'bring to bear' or weather in the selection process.

The cupboard should, like the bowl, be seen in terms of the function that makes it a specific type of cupboard, and not necessarily seen in terms of the energies of its manufacture.

The cupboard is the end product (Micro) of a Sawmill (Meso) that manufactures to differing qualities from forests (Macro).

The context of the cupboard per se would be its overall capacity to perform its container function of holding utensils e.g. bowl.

Its Meso would be its structural arrangements and partitioning and fittings and the evolutionary assets or qualitative aspects - Micro, would be the social and physical qualitative difference between Oak and MDF Hardboard, and the structural tolerances and aesthetic qualities of plastic and brass.

A record player has a Macro of electricity, capital and the context and function of an information transformer.

The Meso or structure and mechanics of the hardware, its choice of; materials; circuit boards, their relative component complexity and arrangements, and additional attenuations, options and facility would also have a qualitative aspect Micro, both in social status and end product of HiFi.

A Book or other Media process, has as its context its topic, and a Macro also determined by the available information and physical formats and ingredients of its social source. Its Meso, or structure and mechanics are the ideologies or idea formats that collate and relate and present and explain the general relativity of the social artefact or information tool to its social context.

Whereas the evolutionary asset of the book, its Micro, would be how effective and intelligent an ideological tool it was for the exploitation of the resources of the context to which its main premise was applied.

A lamppost has as its social context, the illumination of infrastructure for the purposes of efficient society etc, and as a Macro both the capital of taxation and the power of electricity and the facilitation of orderly social conduct, its Meso is the structure and components of the object itself, its concrete or metal, its wiring system and lighting components, and its qualitative aspects are mainly aesthetic in relation to how much light it provides, what colour, what morphology how socially designed, how high and the quality of both structure and function.

A Home has as its context the housing of a family unit for the purposes of labour maintenance within the context of the infrastructure - the family or Macro will maintain the input of capital, fuel, energies, supermarkets, reservoirs, petrol, and these will be utilised by the structure and mechanics of the social context, Meso, its market efficiency, its learning and reproductive and creative potential and the degree of intelligence and efficiency to be invested in and deployed in maintaining and sustaining the fabric and quality of the social environment.

The Qualitative aspects of home are related to capital input, class and other types of ideology of social fabric and aesthetic that enable evolution, expansion and successful stress free growth for '*the most benefit from the least cost.*' [Smith A, 1776]

These prior examples are capable of being mechanised by a simple algebraic format which can illustrate the relationships of integrity or disintegrity involved in these nested systems and their internal and external exchanges.

This next example is of a simple Homeostatic mechanism dependent on the qualitative aspects of the competitive Micro in its exploitation of the Context from which it is deriving its sustenance.

The organism or fish has three distinct zones, macro, meso and micro and these three zones each have their own inner workings or maintenance to do – endogenous factors, and each zone has a contribution to make to the whole, external to their own internal mechanistic – exogenous factors.

That is a total of six zones.

Macro exogenous + context

Macro – endogenous

Meso exogenous

Meso endogenous

Micro exogenous

Micro endogenous + site of competition

Later in this Tripartite Essentialism work I will attempt to show how these six factors can be used to produce detailed empirical maps of any domain within this general systems theory. (Six keys systems theory)

The following example illustrates a story about these six zones and how the ‘World’ refines itself to provide the context in which a system or (fish) may evolve ..

The world, made up of many components representing land; elements and variously derived systems that will contribute to the oceanic system. From this Pedosphere, rivers drain, precipitation of solvents, boundaries of various mineral strata and rocks etc mark the junction or estuary where the concentrated presence of all the Micro-factors that feed the sea is sent to provide the ingredients or context for our fish.

In effect, the coast has acted like a vast membrane between the context of the land and the context of the sea.

From which, the various factors and co-factors useful to the promotion and creation of an evolutionary vacancy for the fish precipitate into the ocean from another exogenous system (Unified at a global organic level by an interdependency of the same components eg. Carbon, Oxygen, Nitrogen, Nutrient Minerals, Water etc.) The diluting body of water separates from the high concentration of salts, biomass, bases etc injected by the rivers, the substances that will provide in some form, the energy source of the fish.

This input is further processed by other organic and inorganic processes in the ocean - and some factors e.g. salts may be bound up by Calcium Sulphate in Plankton and may be precipitated out of the system as sediment, or, these factors may be consumed and passed, usefully processed, to some other tier of the food chain.

At this stage, the original Microfactors may have found their way into the production of many useful nutrients and co-factors. These may either contribute to the food factors in the Macro of the fish, or may be precipitated out through other cycles less useful to the context and environment of the fish.

A similar complexity of changes is reflected in the algebraic model/organic systems description.

The energy source of the fish is the system of Microfactors supplied by the land, sifted and specialised to augment its life - or death.

Where these factors become the energy source of the fish, the organism itself has a demand for those ingredients and products it has evolved with. The organism is thus surrounded by or has evolved into that immediate environment which can fulfil its needs. (That environment is a Morphogenetic Attractor).

The Macro of the fish, then, supplies the structure and mechanics (Meso) with the nutrients that it is currently evolved to process; and through various energy exchange mechanisms or Meso's/membranes or biochemical pathways, the essence of what is vital for life, evolution and adaptation is conveyed in various stages to the Micro, where those evolutionary assets are employed or cancelled in the struggle with the context environment (Q).

The following narrative relates the behaviour of this model with reference to syntax.

1. The niche that provides the context to contain this Macro organism/organisation/system is represented by various factors or groups of letters.

Those factors directly used/acquired by the organism at its macro are A, M1, M2, M3, SB(E) or food and energy input to the Energy Gathering Mechanism VN of the organism Z.

M1 pays for the maintenance of the fishes (Z) macro - energy gathering mechanism VN. [macro endogenous toll], M2 pays for the passage of nutrients to the meso zone.

2. The Meso - processes E (Evolutionary Advantage) for use at Q its site of competition, its evolutionary goal. The payment of M3 – the [endogenous toll of the meso zone] enables ASB to be facilitated by maintained and working organics such that E - Evolutionary Advantage can then be more easily passed forward from the exogenous mechanisms of the meso zone, [exogenous toll of the meso zone is M4] through the structure and mechanics of the fish to the exogenous mechanisms of the microzone
3. Paying an exogenous toll of (M5) at a membrane of the micro zone (P) for the furtherance of AS(E) to the site of evolutionary struggle.
4. Where E is the processed asset the system can furnish to bridge to, adapt or exploit competitively as far as it can in any context.
5. The toll (M5), paid, mechanism P - the site of the systemic competition of the organism Z is Q. The exchanges bring and enable a carrier mechanism RV(T) to bind AS(E) and convey it down pathways that demand it.
6. Part (T) of RV(T) can only take AS(E) forward if it can locate its binary receptor mechanism RV(Y). T and Y are mutually attracted, however Y is a resource which is only produced when the organism as a whole is competing well with 'exogeny' i.e. the context at factor Q - where Q is a chaotic energy demand that affects the integrity of organism Z.

7. In this chaos at Q, the production of favourable conditions for Z are dependent on natural cycling and variation of Y

8. Thus when Z is doing well, and Q conditions are favourable, Y enables the progress of AS(E).

Y represents a potential for exhaustion and could through its absence debilitate the organism to a state of disintegrity, making the quality of substance of Z, e.g. maintenance and reserves etc. an important factor in surviving the competitive stress of Q.

Q on the other hand represents the freedom of external factors to interfere with the evolution of a system.

With Y present, AS(E) is taken to and bonded to mechanism W which further enhances RV.

9. The number of exchanges from one mechanism to another represent, here, the increasing complexity which binds and processes, refines and directs food/energy input into the specialised compartment of the Micro which is interfacing with the environmental competition.

10. 'Food' factor (AS) is then expended to convey (E) - Evolutionary Advantage to the Micro or Assets of the organism - enabling Z to hold its own, And where Z has advantage over Q, it produces Y - its potential for continued survival.

This process of natural selection in terms of increased stress on the umbrella of systemic integrity may be illustrated at work within the algebraic model in the story of the dinosaur .. where supported by the body of energies that comprised the atmosphere and its trophic range - under this umbrella it flourished, finding a tolerable equilibrium between air temperature, body temperature and energy consumption.

The dinosaur lost energy to the atmosphere in an exchange or toll paid at a comfortable rate.

When the climate changed and the air grew colder, the biological identity of the reptile could not support the massive heat loss and the increased toll, which made greater demands on its energy reserves than it could cope with.

With no new equilibrium between the cold weather and the biology of the dinosaur being possible the only other outcome was extinction. I.e. the toll of Q was too much for Z to sustain.

The use of analogy within Tripartite Essentialism is an important tool to renegotiate old scientific models and old data such that they become more relevant and applicable to real life in the 21st century.

Appendix 1. The Languages [A] and [TRE]

There are 729 states of [A] at time2. i.e. A to B through some common C with the intercession of (at least) a common D.

Minus the logically decided 64 states of [TRE]:

there are 729 delta T hexagrams i.e. time1 - 27 states times one of 27 at time2 =

729. Modalities of [A] 665 + [TRE] 64

examples of [A] Trigrams [TRE] Trigrams

The 27 Trigrams of the Language [A] are also in the form: Macro, Meso, Micro A to B through some common C with the intercession of at least a common D.

The 27 [A] time1 states are tripartite relativity of the form:

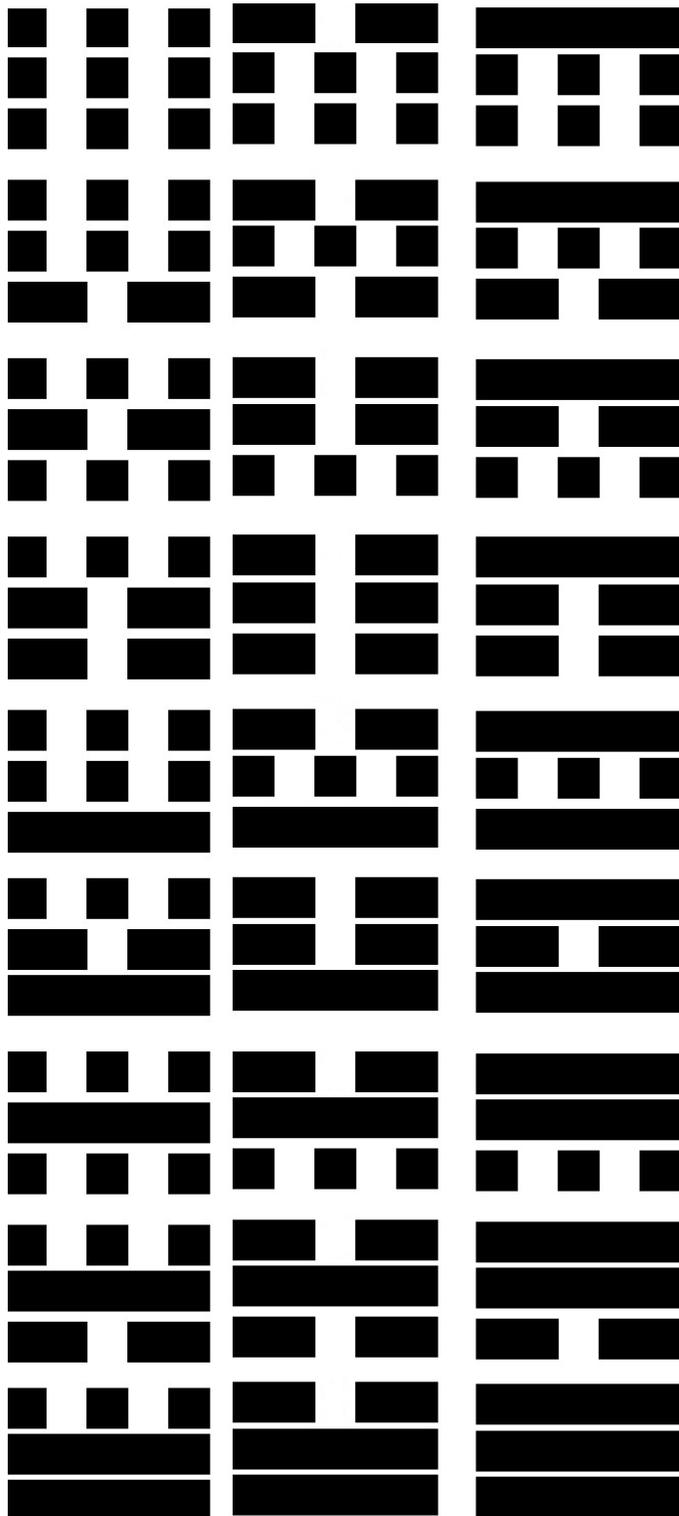
MACRO [1, 0, 2] - where 1 = on, 0 = off and 2 = transitional.

MESO [1, 0, 2]

MICRO [1, 0, 2]

Appendix 3. The Octal Language [TRE] with no temporal Modalities (time2) - from disintegrity to integrity.

Appendix 1. THE LANGUAGE [A] 27, time1 Trigrams.



A 2.2 TRIPARTITE MODELLING STRATEGIES.

From a set of simple rules, and using the strong analogies generated, this holistic general systems theory paradigm proposes many sought after answers - a way of seeing relativity and function in a holistic and also logical way. A Universal inverse proportion power law e.g. Ohm's Law and biological osmosis provide the core model for all systems. All possess some bigger energy concentration donating to a lower energy concentration through the intermediary of common medium of relativity. Not necessarily a simple Inverse-Square Law due to the variable nature of the media through which most exchanges take place.

From within an umbrella of potential e.g. the potential difference between one site/event and another, energy passes or diffuses or discharges from a site of higher energy to one of lower energy and by that process creating the potential for another emergent system. We must first formally classify Tripartite Essentialism within the Philosophy of Science.

Tripartite Essentialism is based upon the field theory notion that there is a continuous relation between one system and another through a common medium. [An inverse square or inverse proportion relationship] i.e. A to B through some common C. with the intercession of some D.

The TRE metaphysics is based upon and maps the paradigm of observed chaotic behaviour in the cosmos. This general systems theory therefore has natural chaos processes at its heart.

Moreover the Chaos law of Emergence, where one more massive but less sophisticated system by its more massive scales of chaos(aether) in a higher energy state feeds into and - [emerges] another more sophisticated system in our time space. This is accomplished by the transference of energy from the lesser-evolved system to a site or niche of competition with another system in the same context.

The product of this transference of energy (or discharge) is some system or artefact that is said to have emerged or filled the vacancy created by evolution and competition. In America at the Santa Fe Institute, the biological implications of this 'vacancy' were labelled as 'Morphogenetic Attractors'. This discharge or current occurs through a medium which offers resistance. There are three broad types of discharge from high to low energy.

The 'electricity' or substance of this discharge/transaction varies in the chaotic physical cosmos in varying degrees of complexity and also in the metaphysics [TRE] as e.g. as types of material complexity; where;

1. the alpha class e.g.. conveys basic energy as aether and photons,
2. the beta class where energy is bound up in and invested in mechanics of an organic or geological nature and the 'electricity' of the discharge between two poles becomes invested in systems more teleologically sophisticated than a mere trail of electrons. e.g. water, ions and hydrocarbons etc.
3. The gamma class, incorporate the two previous types of 'Voltage' but also includes the additional teleological sophistication

of energy being further abstracted and manipulated, packaged and invested by types of social artefact or information meta systems.

Easily measured in a simple format - as electricity, this tripartite format is known and measured in more complex, compound and crystallised (telic) energy substrates and organised and self-regulating aggregates of matter - e.g. in psychological systems, which are relatively abstract systems (in comparison with a copper wire), the discharge of motivation has been measured by Lewin [1951] - unconsciously using a Tripartite principle. Kurt Lewin has developed this as a 'Field Theory in Psychology'.
Lewin, K. (1951) Field theory in social science; selected theoretical papers. D. Cartwright (ed.). New York: Harper & Row

The Importance of Analogy. Osmosis via the exchanges of a universal 'Ohms Law' can be used as an analogous modelling strategy for transference at all levels of material complexity from the atomic rules of Fajan, the electronic rules of Ohm, to the psychological rules of Lewin which are all based on at least an inverse proportional relationship – in this case an inverse square power law. Osmosis is a biological term used to describe the active transport of salts from an area of high concentration to an area of low concentration through a semi-permeable membrane. The basic universal premise is that any system is a 'membrane' between two others. This Meso role identifies the membrane as the attenuating artefact C in the [TRE] transaction process. A to B through common C The structure and mechanics of membrane C pass on the 'discharge' to the site of systemic competition. Energy flowing into or being fed into the locus of components that comprise a Tripartite system finds a condition of impedance to its flow; where the original stream becomes transmuted or metabolised into those substances or effects which maintain the system's function, whether biological or physical. Given a consistent, qualitative flow, the structure can specialise on the resources of its input to exploit systems ever more different and incongruous to the energy system from which it emerged. This factor is dependent on the stress imposed externally at the site of competition between this system and its context and the competing context into which the ergonomic 'discharge' is directed. For example in the story of the prehistoric evolution of amphibians where the developing respiratory mechanism of the organism enabled the exploitation of new habitat and context on the shore - this adaptation, initially, may have often failed under the critical stress of lack of humidity and high temperature. In using biological concepts as tools to interpret more general physical systems, it becomes easier to visualise Tripartite systems living in habitats, eating, metabolising and competing in a world readily accessible to the senses, and in this way, the energy that is being processed and competed for, may be more easily tracked in terms of a biological analogy through the very accessible concept of organic holism.

A system becomes a viable system when a group of components are used consistently to receive and process energy. If consistency develops, it is because there is a context or input that caters for the collective needs of this group of components. In the macrocosm, e.g. in a fish, after feeding, the organs metabolise the input and distribute the metabolites to every part of the organisation and organism where they are used in the process of growth, competition or maintenance. Speaking more abstractly; this structure and mechanics or, supporting mechanism or metabolism, is an energy-

distribution infrastructure, as often seen in civilisation as it is at the super-physical level.

[Smith A, 'An enquiry into the nature and causes of the Wealth of Nations, 1776] where fine tuning of a welfare (public interest) economics strategy with the systemization of economic and industrial benefits around the strategies of the open market allegedly produced a viable society. Industry and Society and Individuals who obtained the most benefit for the least cost allegedly would be 'selected for' in terms of a social and biological Darwinism. i.e. A selection of the most efficient organisation. (as opposed to organism).

In treating Civilisation as part of the set of Organic Holism, it too has a brick and mortar body powered by the metabolite of electricity obtained in the competitive jungle of Capitalism. The context of a Civilisation is its minerals, resources and materials and the processing capacity of the system itself is dependent on the efficiency of emergent tools, artefacts, processes and information with which raw materials are exploited e.g. farming, mining, factory and processing technology. The 'heart' of the nuclear reactor, pumps sustenance along the veins and arteries of its power cables, and cognisant ganglia of the stock exchanges allocate lines of trade and communication, where secondary Capital metabolites are shipped through the enormous organic system of the infrastructure in a quest for sustained growth and competition for available resources according to stimuli or Labour Market Intelligence.

As in a biological system, the technological system processes and reprocesses raw input through a chain of useful and cumulative effects, investing time, capital and utility in these metabolic products. The evolutionary assets of a Civilisation are information based, where the management and control of information leads through policy and science to the maximisation of output, for the minimum of input. Sustained growth and metabolism, a necessity in an entropic environment can only be maintained by the maximisation of inputs as a whole, and since the natural and universal power law is involved in the demographic and ergonomic cycles of growth and decay, the exponential demand on resources made by exponential consumption can only be maintained by correct and competitive scientific advance. At this level of complexity, the Osmosis analogy includes many more sets of artefacts, systems and formats into which the energy discharge of the context macro has been encoded.

Here are a few more examples of the 'Tripartite Relativity' paradigm.
In TRE every object has three aspects

Three parts and a context. i.e.

Part1 - Context and Macro: CMacro,

Part2 - Meso,

Part3 - Micro. that use analogies to describe systems both in general terms but also in physical and empirical terms.

These ideas use the biological 'osmosis' model to illustrate the transaction process between high energy objects and systems to low energy objects and systems.

Food, has as its context the Sun, which powers the green cycle whose Meso DNA and coding for systematic organism turns the available Carbon, Nitrogen and Phosphour in the Macro into the Micro asset of Carbohydrate Sugars and Oxygen needed to sustain the plants. This series of trophic and vegetational cycles produce a complex ecosystem and food web which becomes the macro that supplies components to another inhabitant, Man. Man extracts for the benefits of the gastronomical structure and mechanics of Man, [his Meso] energy packets of variable quality and quantity. His kitchen receptacle, when examined holistically with Tripartite Relativity has a macro or function that suits it for the context of the kitchen in design and purpose. The size of the bowl, the energy facility of the umbrella that it provides to sustain its utility - the macro or utility for the conveyance of fruit is dependent on the Man's social context. The Meso of the bowl is basically its components and structural constituents, e.g. molecular and crystalline integrity and tolerance etc, and the Micro of the bowl, basically, its evolutionary assets are its qualitative aspects e.g. if the purpose of the bowl was solely general utility, then plastic is an asset to enable continuity of function; if however, its quality is not selecting it to attain conditions of continual use e.g. porcelain bowl at a banquet may be more acceptable, then the Micro of the bowl is dependent on context conditions both qualitative and social and the amount of psychological pressure its system can 'bring to bear' or weather in the selection process. The cupboard should, like the bowl, be seen in terms of the function that makes it a specific type of cupboard, and not necessarily seen in terms of the energies of its manufacture. The cupboard is the end product (Micro) of a Sawmill (Meso) that manufactures to differing qualities from forests (Macro). The context of the cupboard per se would be its overall capacity to perform its container function of holding utensils e.g. bowl. Its Meso would be its structural arrangements and partitioning and fitments and the evolutionary assets or qualitative aspects - Micro, would be the social and physical qualitative difference between Oak and MDF Hardboard, and the structural tolerances and aesthetic qualities of plastic and brass. A record player has a Macro of electricity, capital and the context and function of an information transformer. The Meso or structure and mechanics of the hardware, its choice of; materials; circuit boards, their relative component complexity and arrangements, and additional attenuations, options and facility would also have a qualitative aspect Micro, both in social status and end product of HiFi. A Book or other Media process, has as its context its topic, and a Macro also determined by the available information and physical formats and ingredients of its social source. Its Meso, or structure and mechanics are the ideologies or idea formats that collate and relate and present and explain the general relativity of the social artefact or information tool to its social context. Whereas the evolutionary asset of the book, its Micro, would be how effective and intelligent an ideological tool it was for the exploitation of the resources of the context to which its main premise was applied. A lampost has as its social context, the illumination of infrastructure for the purposes of efficient society etc, and as a Macro both the capital of taxation and the power of electricity and the facilitation of orderly social conduct, its Meso is the structure and components of the object itself, its concrete or metal, its wiring system and lighting components, and its qualitative aspects are mainly aesthetic in relation to how much light it provides, what colour, what morphology how socially designed, how high and the quality of both structure and function. A Home has as its context the housing of a family unit for the purposes of labour maintenance within the context of the infrastructure - the family or Macro will maintain the input of capital, fuel, energies,

supermarkets, reservoirs, petrol, and these will be utilised by the structure and mechanics of the social context, Meso, its market efficiency, its learning and reproductive and creative potential and the degree of intelligence and efficiency to be invested in and deployed in maintaining and sustaining the fabric and quality of the social environment. The Qualitative aspects of home are related to capital input, class and other types of ideology of social fabric and aesthetic that enable evolution, expansion and successful stress free growth for the most benefit from the least cost. [Smith A, 1776]

The relativity of New Particle Physics can be demonstrated by an analogy with a musical instrument the body of which is comprised of sub-atomic etheric particles from whose Chaos Emerges a note or Particle. Now if this analogy holds, using our five senses, we can see the subatomic particles in the world of colours and vision and 'musical instruments', but we can only hear the Particle 'note' within the idiom of sound and because emergence is not a widely understood process, the causative link between the idiom of particle production and the particle itself could not be explained by a reductionist theory which decontextualised the particle from its reason for being. Which is why Particle Physics is today in disarray with umpteen paradoxes and anomalies like 26 mathematical dimensions to explain a superstring etc. This process of decontextualisation effectively removes a dimension or tier of relationships from rational thought because a monkey can be touched and verified and not the irrational metaphysical relationship between the monkey and the tree. Without Holism the study of the monkeys and particles is undecidable, for all the monkeys in the lab are lab monkeys, not forest monkeys in much the same way that all the particles in the particle zoo are lab particles out of the context of their natural habitat - natural relativity. What then is this canopy under which the particle zoo of bizarre hybrid particles flourish e.g. The basic laws of fluid dynamics can model energy as a fluid. It gets turbulent, the turbulence has peaks and troughs of intensity, areas of violent flux, and within this non homogenous mix, areas of calm and structure, the Strange Attractors that have become the temporary hybrid particles currently observed. Much like the Gas Giant planet Jupiter has the characteristic Red Spot, the persistent - emerged from chaos - eye of a fluid storm, the basic and unique particles themselves exist by virtue of the storm in the aether of sub-atomic energies in the Cosmos, the flux of the Essences, and amidst this chaos emerge the calm islands or nodes which are the structural fruits of flux.

Philosophy of Science - notes The synthesis upon 'a priori' fact in Tripartite Essentialism is a Phenomenological event in the world of labels, but the essential relativity of such events within the physical objects themselves belongs to a Logically Complete and closed set of relativistic functions - and those functions are responsible for the fact of the noun and its ingredients.

The epistemological status of Tripartite Relativity and its one basic field 'law' i.e. the inverse square law, that ties it into the operation of 'natural' and universal processes, comes from a continuous tautological relation between the components of the 3part system and their context: a discontinuous relation in this sense is a reductio, since it implies no relativity and hence no measurement or phenomenon. i.e. relativity is 'a priori' valid.

All materials generated by Tripartite Essentialist formalism belong to the one basic set of 729 atomic events which physically increment by gradual 729 transitions to the greatest level of structure at 729.

Tripartite Essentialism incorporates a field law, where a powers system is in continuous relation. In metaphysics, to categorise Tripartite Essentialism with the three main classical types of individual metaphysical distinction, produces a bit of a quandry, for [TRE] embraces all three types. The set of 64 Essential events and members are constituted Parmenidean individuals: changeless, permanent entities. The atomic stance that entails from this is that change can only come through their rearrangement.

The emergence of 'structures for nothing' from the Heraclitean 'fires' as it were is described by the generative theory of causality. Where the cause is supposed to have the power to generate the effect and is connected to it.

Such cause in [TRE] has a natural law of emergence observable in a continuous field as an internal relation.

Whereas the succession theory of causality would hold that the phenomena observed are psychological synthesis, the 'a priori' element of the Tripartite atom creates a real connection between cause and effect and that this can be identified by a causal mechanism e.g. using Ohm's Law, a light bulb, and the application of a potential difference in energy relativity between the filament.

The Primary quality of Tripartite Essentialism [T] is energy transaction.

The ergonomic status of all systems, universally, is not fixed and is subject to arbitrary/chaotic change or the rearrangement of the sets of atoms and processes that comprise the system. The phenomenon of change gives rise to the secondary qualities associated with the Primary quality of flux.

For example the primary quality of Ohms Law electricity generates the secondary quality of light and heat. In [T] the primary quality of the universal energy power law of mass generates the secondary quality of gravity and time.

The emergent properties of flux can be defined in terms of: the property of the whole being produced by the properties of the parts, and that these emergent holistic properties derive from the whole structure and its context..

The Fulfilment of the Logical Atomism paradigm

There is a substantial school of thought that can account for the reality behind my Tripartite Essentialist metaphysics – it's called 'Logical Atomism'.

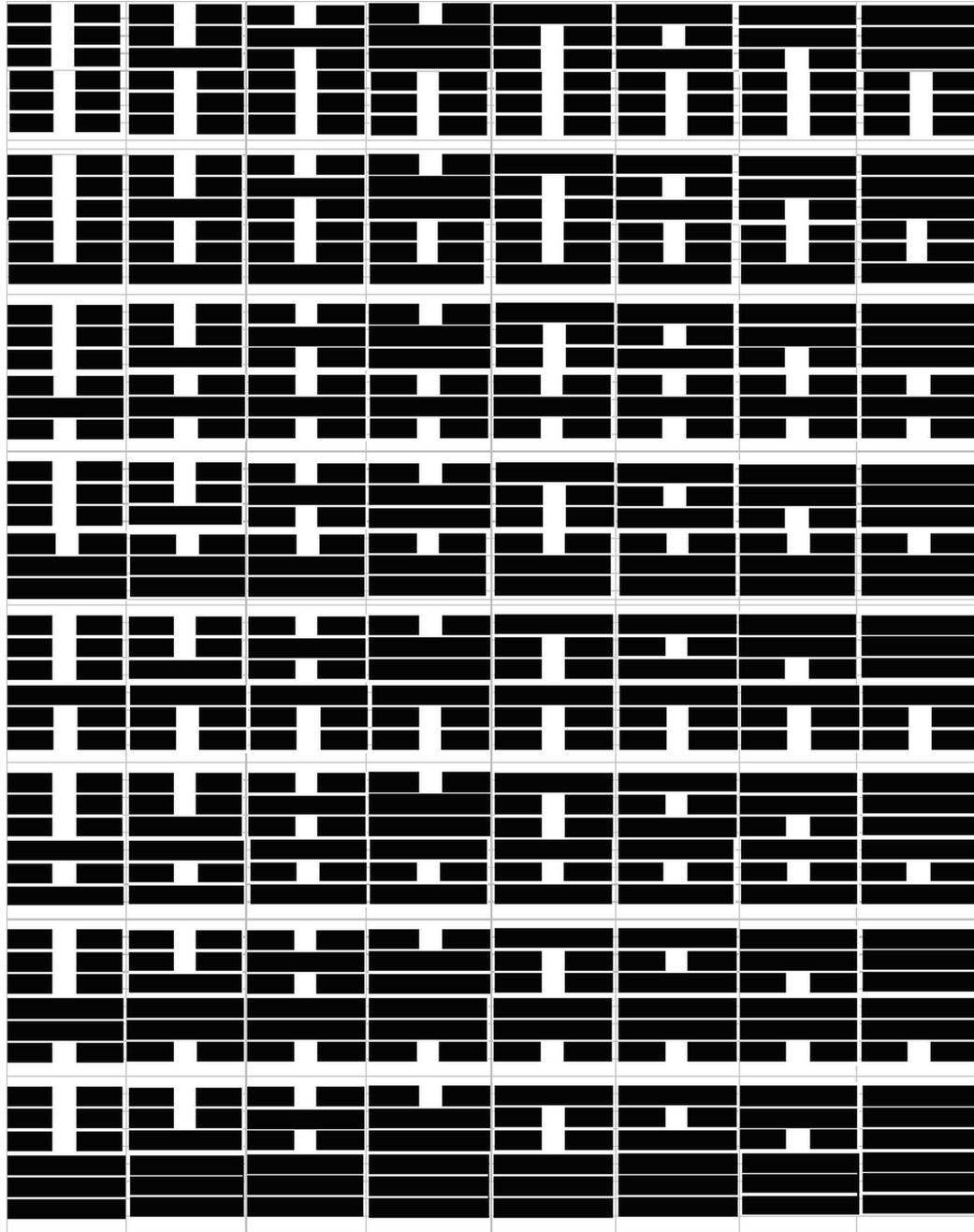
'Logical atomism is a philosophical belief that originated in the early 20th century with the development of analytic philosophy. Its principal exponents were the British philosopher Bertrand Russell, the early work of his Austrian-born pupil and colleague Ludwig Wittgenstein, and his German counterpart Rudolf Carnap. Logical Atomism is the philosophical theory of Bertrand Russell, the British philosopher (1872-1970),

and the early Ludwig Wittgenstein, the Austrian-born British philosopher (1889-1951), which held that all meaningful expressions must be analysable into atomic elements which refer directly to atomic elements of the real world. ‘*Collins English Dictionary – Complete and Unabridged © HarperCollins Publishers 1991, 1994, 1998, 2000, 2003*

Tripartite Essentialism fulfils the Logical Atomism paradigm and puts it squarely back on the Philosophy agenda for the 21st Century

The theory holds that the world consists of ultimate logical "facts" (or "atoms") that cannot be broken down any further. . Having originally propounded this stance in his ‘Tractatus Logico-Philosophicus’. In Tripartite Essentialism they are logical snapshots of an atom in flux. They are depicted as a logical atom -a three part transaction and integrity description of an exchange of the form A to B through a common C – and modally, with the possible intercession of at least some context D. Where A, B, C, D are valid /integral or invalid/disintegrated as a snapshot between time 1 and 2. In any three part system ABC there are the eight logically real trigrams, 64 at time2 and twenty seven modal logic (including decided and undecided state) trigrams at time1 and 729 at time2.

Further, these 729 elements or modalities can be characterised in any context as components of natural language and also mapped logically into a Periodic Table of Activity which analogously maps onto the Periodic Table of Chemistry where the most changeable elements in flux can be seen on the top left, with transitional elements in the middle and the most stable elements on the right hand side.



Group→	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18
↓Period																		
1	1 H																	2 He
2	3 Li	4 Be											5 B	6 C	7 N	8 O	9 F	10 Ne
3	11 Na	12 Mg											13 Al	14 Si	15 P	16 S	17 Cl	18 Ar
4	19 K	20 Ca	21 Sc	22 Ti	23 V	24 Cr	25 Mn	26 Fe	27 Co	28 Ni	29 Cu	30 Zn	31 Ga	32 Ge	33 As	34 Se	35 Br	36 Kr
5	37 Rb	38 Sr	39 Y	40 Zr	41 Nb	42 Mo	43 Tc	44 Ru	45 Rh	46 Pd	47 Ag	48 Cd	49 In	50 Sn	51 Sb	52 Te	53 I	54 Xe
6	55 Cs	56 Ba	* 71 Lu	72 Hf	73 Ta	74 W	75 Re	76 Os	77 Ir	78 Pt	79 Au	80 Hg	81 Tl	82 Pb	83 Bi	84 Po	85 At	86 Rn
7	87 Fr	88 Ra	* 103 Lr	104 Rf	105 Db	106 Sg	107 Bh	108 Hs	109 Mt	110 Ds	111 Rg	112 Cn	113 Nh	114 Fl	115 Mc	116 Lv	117 Ts	118 Og
			* 57 La	58 Ce	59 Pr	60 Nd	61 Pm	62 Sm	63 Eu	64 Gd	65 Tb	66 Dy	67 Ho	68 Er	69 Tm	70 Yb		
			* 89 Ac	90 Th	91 Pa	92 U	93 Np	94 Pu	95 Am	96 Cm	97 Bk	98 Cf	99 Es	100 Fm	101 Md	102 No		

A.22 TRE as an Instrument of prediction .

People want to know how things work.

Pierre Duhem the 'Instrumentalist' famously said of a theory that it must 'be a prophet for us!'

Mind you, to take his stance further about a working model being sufficient – although a bi-plane model is a sufficient instrument for flight, it is not going to get us to Mars.

Hence today I am tasked not only with showing predictions that can be verified but demonstrating at least the possibility of 'space age' applications with them.

To begin with though what sort of theory is Tripartite Essentialism ? does it have a school of thought like Heraclitus of Ephesus, Greece; c. 500 who was famous for his insistence on ever-present change as being the fundamental essence of the universe, as stated in the famous saying, "No man ever steps in the same river twice"

Or the more unlikely antithesis of Parmenides of Elea ca. 500 BC who thought that change is impossible, and existence is timeless, uniform, necessary, and unchanging.

Tripartite Essentialism (TRE) though is all about a universe in chaos and flux, but in the 21st Century there are two prominent schools of thinking about scientific theories. Is TRE : Instrumentalism or Scientific Realism?

Instrumentalism is a view within the *philosophy of science* that claims scientific theories are merely useful tools for predicting phenomena instead of true or approximately true descriptions of the physical world. Instrumentalism can best be understood as a position against *scientific realism* which is the philosophical view that scientific theories are true or approximately true descriptions of the physical world.

Tripartite Essentialism as a whole and unifying theory is comprised of both physics and metaphysics. It would aim to incorporate both Instrumentalism and Scientific Realism in its thesis.

From the chaos theory observed in the natural and accurately simulated in the computational world can be drawn a hierarchy of chaos forms and behaviours at any and all scales. For example fluid mechanics and chaos and complexity can be observed as much in superclusters, galactic vortices, planetary weather systems, rivers and the 'coriolis effect' in our baths, to random Brownian motion in gasses, to chaos networks in seaweed, trees, cardio-vascular systems, etc it does seem rather a pity, in fact nonsensical, that some arbitrary intellectualisation can instruct us all 'forevermore' that chaos and emergence in no way extends downscale into the microcosmic domain of particles.

e.g. from Wiki '*In physics, emergence is used to describe a property, law, or phenomenon which occurs at macroscopic scales (in space or time) but not at microscopic scales, despite the fact that a macroscopic system can be viewed as a very large ensemble of microscopic systems.*'

Duhem popularized instrumentalism among philosophers of science, in his 1906 book *The Aim and Structure of Physical Theory*. (Reprinted Princeton 1954) Duhem's instrumentalism was centred on a firm separation between *metaphysics* and physics. Duhem claimed that physics could be and should be done independently of deep metaphysical assumptions. Instead, the aim of physical theory is to develop mathematical laws that predict phenomenological laws with as much precision, completeness, and simplicity as possible.

The position of Tripartite Essentialism, however, is to fuse or synthesise the logical, the metaphysical and the physical, creating atoms of logic, bound, informed and guided by known laws to simulate observed behaviours in simple and complex objects and events at all scales e.g. mapping out processes of exchange. The Unifying Theory of Tripartite Essentialism itself is a 'synthetic a priori' thesis where – upon the bones of the 'a priori' or before-the-fact logic are synthesised in some instrumentalist context, the flesh of holism, complex, but empirically observed to behave according to physical laws and governed by TRE metaphysical processes.

In Duhem's words:

A physical theory is not an explanation; it is a system of mathematical propositions whose aim is to represent as simply, as completely, and as exactly as possible a whole group of experimental laws (Duhem 1954, 19).

Thus physicists need not believe that the fundamental laws of physics (e.g. *Einstein's relativity*) are true or that the fundamental physical entities (e.g. *god particles*) actually exist. Rather, these are just useful fictions that help physicists

predict phenomena. Also, Duhem suggested that *chemistry* and *biology* can be viewed instrumentally since the methods and instruments of chemistry and biology depend on physical theories.

In particular, Tripartite Essentialism agrees with the teleology and succession of the physics, chemistry, biology, information chain and the many notable examples of chaos and emergence within these domains so readily available in the public domain.

Instrumentalisms physical theories themselves are dependent on observation. Duhem's claim is that in order to interpret observational data from physical instruments and apparatus, physicists need to use physical theory.

For example, one event that made *Isaac Newton* (1643-1727) famous was the ability of his theory of gravity to predict new planets, such as *Neptune* in 1846. Literally, theoretical physicists in the 1800s used Newton's theory to predict an eighth planet from perturbations in Uranus's orbit. Then these theoreticians told *astronomers* where to look in the sky to find the eighth planet. Eventually, astronomers were able to find the planet in 1846, but only with the use of telescopes.

So, Duhem would point out that Newtonian gravitational theory was able to predict a new planet, but only with the aid of previous physical theory about telescopes as well as theory about the celestial landscape at that time. Thus when scientists predict and observe new phenomena with scientific theories, they are really observing theory-dependent phenomena that could be fictitious themselves.

Tripartite Essentialism by Hennessey, (1991) uses a biological systems theory approach to absolutely everything physical. Knowing that chaos systems in biological environments self-regulate by a combination of emergence and entropy – it was possible to analogise that the Universe is also complex self-regulating system and that the 'heat death' from unbounded entropy proposed by proponents of the 'Big Bang Theory' is probably only half the picture, and that emergence from this chaotically behaving system would result in some re-warming. It is possible therefore that what we know as our cosmos self-regulates by expansion and contractions around an equilibrium almost similar to breathing !!

Whereas there are sceptical schools of thought set against such potentially fallacious generalities – with reference to Duhem, (1954, p27) they can be a '*prophet for us ..*'

Scientific Realists would argue for theoretical contradictions that falsify such theories as instruments, as in fact would Tripartite Essentialism for although many supportive observations of an event can enable us to positively theorise about some Instrument of reason, so too could observed contradictions enable us to discount a theory.

The Realist Karl Popper would have it that: Logically, no number of positive outcomes at the level of experimental testing can confirm a scientific theory, but a single counterexample is logically decisive: it shows the theory, from which the implication is derived, to be false. E.g. the inference that "all swans we have seen are white, and, therefore, all swans are white", before the discovery of black swans) from Hume's Problem of Induction. We have no way of knowing when or if we will find a black swan or a brown swan or a swan of any other colour than white. There is no time of the year or day that we could expect to see a black swan, but if and when

we do, we cannot assert at that point that all swans in the universe are white, only that some swans are white and that some swans are at least black.

Tripartite Essentialism would argue the latter, that some swans are white and that some swans are at least black and about the possibility of there being swans of all and every colour *Before* we have even seen the fact of a black one. I.e. that our Universe is 'a priori' chaotic.

Scientific Realists and Instrumentalists would totally disagree with that assertion claiming that a great many scientific observations of natural selection *in vivo* would indicate that only a white swan, or indeed a black swan would be selected as a viable breeding mate by the environmentally driven genetics of the 'traditional or indigenous' swan. However, it is possible to argue that in the same way the environment mutates due to solar or geological activity or man's social behaviour, so too could the gene pool of the swan to emerge other more vibrant 'flamingo-like' colours in the swan phenotype.

Chaos theory predicts therefore the possibility of mutation of at least biological norms. Further that sudden catastrophic changes in Instrumentation and conditions of observation, even in the nature of empirical measurements due to the intercession of natural chaos, including the chaos law of emergence can be a game changer. For example try googling today for information on the NASA probe that actually gained energy in an inexplicable way whilst bouncing off a planetary magnetosphere. It seemed to get free energy from somewhere – but the news of that which was so findable about 10 years ago doesn't exactly pop up today even in a specific search. It must have been very embarrassing for all those scientific theorists and realists and instrumentalists to not be able to balance the energy books at the end of that manoeuvre.

In 'Instrumentalisms' response to this sort of wild-card thing Duhem did seem to defensively construct arguments to justify his theory such as the 'underdetermination argument' [Quine, Duhem] which is the view that any scientific theory e.g. classical physics, can be underdetermined by the empirical evidence.

The argument was constructed from Duhem's insight that background assumptions are needed to *deduce* observational predictions from physical theories. For example, *Isaac Newton* (1706) assumed that telescopes were reliable observational instruments and that planets can be idealized as point-masses in his prediction that the centre of mass of the planetary system lay inside the sun. The former assumption Duhem would call an "observational assumption" and then latterly he would call a "theoretical assumption." Later, Quine (1951) noted that there are multiple *metaphysical*, mathematical, and *logical* assumptions that underlie theoretical predictions as well.

For example, in the aforementioned theoretical prediction by Newton, Euclidean geometry was used to represent actual physical space, classical logic (including the law of excluded middle) was used in the *deduction*, and absolute motion was presupposed as a metaphysical assumption.

Instrumentalist Heisenberg and his 'Uncertainty principle' is still an instrument at the heart of quantum physics today in the 21st Century.

Similarly, the many background assumptions of Tripartite Essentialism utilise known chaos properties such as emergence and fractalistic, homeostatic equilibria, similar forms at all scales in the microcosm and macrocosm simulated by chaos mathematics, uniqueness and non-linearity and also known properties of fluids such

as wave theory, turbulence, interference, diffusion etc to act as an observational conjectural framework upon which to drape 'everything'.

It is possible to deduce from observations of;

e.g. 1 'electromagnetic flames', In a groundbreaking experiment, researchers from The City College of New York (CCNY) and Lehman College have measured the speed of magnetic avalanches and discovered that the process is analogous to the flame front of a flammable substance. The discovery of a "magnetic flame" could make it easier for engineers to study the dynamics of fire.

e.g. 2 and harmonically red-shifting galaxies [Tomes R, 1992] that there is an invisible aether or atmosphere through which things like

e.g. 3 gravity waves can pass e.g. the first image of a gravitational wave by Chao-Lin of Stanford University in 2014 from the BICEP2 detector at the earth's south pole was a 'smoking gun' for the universal inflation theory.

Thus as a matter of logic, when an observational prediction from a scientific theory is not observed or a conflicting observation is observed, this fact does not imply that the theory is false. It implies that the theory or one of its many background assumptions conflicts with observation.

Tripartite Essentialism though would have it that an observed contradiction could be a sudden and catastrophic change in normality, a process suddenly imposed by the universal processes of chaos – e.g. the meteorite that made the dinosaurs extinct i.e. the Cretaceous–Paleogene (K–Pg) extinction event.

Another catastrophic extinction event called the Cambrian explosion has generated extensive scientific debate. The seemingly rapid appearance of fossils in the "Primordial Strata" was noted as early as the 1840s, and in 1859 Charles Darwin discussed it as one of the main objections that could be made against the theory of evolution by natural selection.

Examples of Instrumentalism and Scientific Realism failing in this way are not hard to find however, but Tripartite Essentialism and its chaos paradigm would not be similarly disadvantaged for an explanation.

From there however, Instrumentalism with Duhem seems to lose the way with 'confirmation holism' which seems, petulantly and basically to say that if something is wrong with a theory or its background assumptions then all of science is wrong and that cannot be right !! I think that that is best described as Descartes 'epistemological scepticism' – 'how can we know anything' !!

Tripartite Essentialism's chaos paradigm and logic of exchanges does supply us ultimately with a way of knowing about and computing with the fundamentals of our physical world, although ultimately by an agreed and enumerated classification of our knowledge base also paired with empirical measurements of the objects in its databases.

A new wave of instrumentalism arose under the Princeton philosopher Bas Van Fraassen. His view, known as *constructive empiricism* claims that while scientific realism is a reasonable philosophical view about scientific theories, instrumentalism is *equally* reasonable (van Fraassen 1980).

Notice the difference in Duhem's instrumentalism and Van Fraassen's instrumentalism. Duhem claims that the aim of physical theory *should* be instrumental. Van Fraassen claims that the aim of physical theory *could also* be instrumental.

Today Tripartite Essentialism as a unifying theory holds a similar position to Bas Van Fraassen – that by observations, instruments, by theories we must strike a balance between the chaotic impermanence we are measuring and theorising about by picking up more readily, more reasonably and more often that not all swans are white.

Current supporting research on Chaos and Wave Theory verifies many assertions and discoveries in my Tripartite Essentialism work as good analogies. e.g. emergence, and Stuart Kauffman, in his work on self-assembling and self-regulating DNA called 'autocatalytic self-organising polymers' in the Santa Fe Institute. The Santa Fe Institute and also the many other researchers in Chaos, Physics and Cosmology such as; Tomes, Plichta, Langton, etc. published in the early and mid-nineties ideas that illuminate the 'eightness' of form. e.g. Ray Tomes Harmonic Theory, 1992, features wave theory at work in the cosmos with harmonic intervals noted in the red shifts of galaxies. Peter Plichta's threeness conclusions in his 'God's Secret Formula, 1992 and Langton's chaos game theories and complexity models e.g. swarm, at the Santa Fe Institute.

In 'An Attempt to Restore Classical Physics', Paul E Rowe, 2010, Dr Rowe illustrates that Hydrogen atoms emerge from nowhere in a vacuum - emergence being a classical law of chaos and that Hydrogen itself performs like a Chladni acoustic waveform - this from Prof. McBride (Organic Chemistry) of Yale.

'Solving Schrödinger's three-dimensional differential equation might have been daunting, but it was not, because the necessary formulas had been worked out more than a century earlier in connection with acoustics. Acoustical "Chladni" figures show how nodal patterns relate to frequencies. The analogy is pursued by studying the form of wave functions for "hydrogen-like" one-electron atoms. Removing normalizing constants from the formulas for familiar orbitals reveals the underlying simplicity of their shapes'.

Since the chaos neologisms of Santa Fe - e.g. 'morphogenetic attractor', are essentially biological, my own terminology has a more 'universal' scope about it e.g. instead of 'morphogenetic attractor' substitute 'evolutionary vacancy', and in Fajan's rules we have an analogy of Ohm's law - and high to low voltage across a common medium e.g. In inorganic chemistry, Fajans' rules, formulated by Kazimierz Fajans in 1923 are used to predict whether a chemical bond will be covalent or ionic, and depend on the charge on the cation and the relative sizes (and exchanges) of the cation and anion.

The formalism supposes that space-time is foliated into a family of space-like surfaces, labelled by their time coordinate, and with coordinates on each slice given by x

The dynamic variables of this theory are taken to be the metric tensor of three dimensional spatial slices and their conjugate momenta. Using these variables it is

possible to define a Hamiltonian, and thereby write the equations of motion for general relativity in the form of Hamilton's equations.

In addition to the twelve variables and there are four Lagrange multipliers: the lapse function, and components of shift vector field,

These describe how each of the "leaves" of the foliation of space-time are welded together. The equations of motion for these variables can be freely specified; this freedom corresponds to the freedom to specify how to lay out the coordinate system in space and time.

The idea that nature abhors a vacuum, from Aristotle, that nature contains no vacuums because the denser surrounding material continuum would immediately fill the rarity of an incipient void is the simple reality behind the morphogenetic attractor, where an opportunity for evolution and growth occurs to fill a gap left by the chaotic processes of expansion and contraction in the life history of biologically and physically chaos-driven systems. Consequently, a new system emerges to fill in the evolutionary opportunity. This opportunity was formed and dictated by the imposed contextual parameters and challenges to tolerances within the original system. Such changes in interaction between the original system and its environment create a pocket of opportunity into which may flow local precursors that would form a new self-regulating environment and a newly evolved niche.

[TRE] research, however, does not limit this phenomenon of pocket formation to biology, and names this kind of vacuum an 'Evolutionary Vacancy'.

This idea could be used to describe the hypothetical 'ghost meson' – a particle-sized pocket in the sub-atomic into which at least probably something could emerge but has not yet been observed to – even though the ghost or the promise of a particle is needed to balance the books. It is a vacancy awaiting to be filled if ever there was one !

The ability of the [TRE] semantics and syntax to enable logical analogies between different systems which have the same basic rule structure has given this theory a real competitive edge over the many failures in the genre of General Systems Theory. The idea that the Set of logical component parts of this theory is, finite, logically closed and formally complete gives us the broad analogy that every system in the universe has a limited number of component parts which illustrate their variety.

The best known scientific example of this is the Periodic Table of Chemistry. Where infinite form is based upon a finite set of 81 stable atoms. [Plichta, 1997] Chemistry, then is a sort of living model of variety produced from limitations. In this set of chemical ingredients, the reactants have a tendency to mutate and migrate towards the electro-chemical equilibrium at the middle of the range of transition elements :- much in the same way that the artificial life colonies of Langton's Santa Fe computers move towards the semi-structural equilibrium at the edge of chaos..

The broad analogy here, is that a metaphysical soup with limited ingredient develops an 'interest' in reaching an equilibrium.

This was also found by Kauffman's in Levy S, autocatalytic proteins and by Goodwin in Lewin R, *Acetabularia* model, which found that local rules for an 'eye' generated an eye as a spontaneous and emergent property of a dynamic chaos system. The organism '*acetabularia*' emerged and demerged an eye several times during the modelling process.

This anti-Darwinian fact, if modelled, logical and true, rather flies in the face of other 'laws of physics and science' too. Langton, having already found that biological systems sometimes ignore the second law of thermodynamics when they start to re-evolve, emerge and self-regulate. [Lewin, R]

The one tidy set of mechanics that ties all Human Knowledge together, the means to unite the Information of the Macrocosm with that of the Microcosm, has not been forthcoming until now.

Academic resistance is still proving an impediment to Scientific progress. Indeed a general systems theory is still considered by many eminent Scientists and Philosophers as an outdated fad of the seventies or at worst - esoteric. E.g. as postulated by L.W Bertalanffy (General Systems Theory). Unfortunately Bertalanffy and his group had no logical and ontologically consistent system to present and his work was dismissed by critics from the Logician and Realist schools of Philosophy.

If Tripartite Essentialism was not based upon Natural Laws, it would have floundered on the same old arguments that buried Bertalanffy. The logical syntax of this system [TRE] puts it not on a basic inductive and falsifiable hypothetical footing, but on the deductive format of; logic, tautology and mathematical fact. For scholars of the classical metaphysics, there is the insoluble quandary that in the 729 archetypal states, there is the fleeting chaos of Heraclitus, the total structure of Parmenides, and lodged somewhere on the edge of Chaos or indeed the edge of Structure is the persistence of the Aristotelian atom.

None of those schools, however, being solely adequate as a conceptual model for [TRE].

Tripartite Essentialism in this sense has no particular school of metaphysic, being also unable to claim any school of Deductive reason in Chinese Archaeology. e.g. the Oracular books of Ta Pau. [Walters, 1983].

One of the profound consequences of the Tripartite theory is that the case for the existence of the eight basic Tripartite Archetypes is based in synthetic a priori mathematics and therefore has ramifications for the Philosophy of Arithmetic - for it dispenses with the traditional Zermelo–Fraenkelan need to derive numerals and 'wholes' from empty sets.

Our entire mathematical and technological and electronic tradition is based upon the rather unsound notion that any one number is actually an empty set - which rather makes our culture a bit insubstantial.

In logic, to justify how a TV or VDU works without mentioning the uncertain continuity of deduction caused by the irrational behaviour of photons in a quantum state is impossible.

e.g. Photon A makes a quantum leap, at time1 but it does not have to be photon A that returns, at time2. it could well be photon B. Since this can't be logically quantified, our entire civilisation is built upon irrational uncertainty and therefore our VDU becomes a 'black box' in more ways than one.

The archaeological appearance or connotations of this symbolism is unimportant and arbitrary as 1's and 0's are sufficient for computational purposes in Boolean mathematics. Basically the 'dragon moving over the water under the sky' etc connotations from Legge's 'I Ching' or Book of Changes translation from 1000BC.



The well known I Ching was originally only one of several works that formed the Ta Pau, the Grand Oracle. It has long been thought that the I Ching's companions had been destroyed, but through the efforts of Walters [1983], the T'ai Hsuang Ching (THC) has been restored. From the diagrams of THC, (hereafter referred to as the logical language [H]) it is evident that it too looks as if it is capable of modelling all modal states from total non-structure to total structure though in a two-dimensional way..

According to Walters [1983], there seems to have been other line and number combinations, however, the symbolism of the known Ta Pau, both individually and collectively are state descriptions of a system at some stage of transformation from one state into another. (A form of Modal Logic.)
If the number of modalities can be restricted and closed, however, as in the 729 of the language [A], then important steps in the dynamic modelling of natural systems can be made as these tend to cycle and recycle many intermediate parts and components.

A.3 The fundamental assumptions of Tripartite Essentialism's Physical Cosmology.

Tripartite Essentialism is a general systems theory built upon a set of assumptions and is a description of a system of interactions of natural laws.

From the following assumptions about the state and behaviour of the natural universe which constitutes a new unifying physical theory of relativity it becomes possible to map these physical exchanges by overlaying a programmable metaphysics

1. The universe is in a state of absolute chaos and flux in both the macrocosm and the microcosm.
2. Order emerges out of chaos. [fusion] a Natural Law
3. Chaos emerges out of order. [entropy and fission]

Note that the first three assumptions appear challenged by rhetoric about 'strong' and 'weak' emergence and also the idea that the microcosm allegedly doesn't have chaos – so it cannot emerge anything. So despite the observational facts that we can see evidence of chaos forms and processes everywhere we look either with a microscope or with a telescope we appear to be fed a different political line which could well keep aspiring physicists of the future away from the allegedly free energy domain of Nikola Tesla and the consequent planetary changes that would unshackle mankind from the monopolies of fossil fuels etc

4. The Cosmos is in a state of flux.

A transfer of energy between two points or systems via a common intervening medium is a process called Osmosis. [a Universal state of affairs i.e. some A to some B through some common C with the intercession of at least one D]

The most basic and tautologically true of an infinite number of transfers of energy in the Cosmos of 3 dimensions of space and one of time is between two systems.

This basic transfer can be modelled in several ways.

- a. Osmosis. i.e. The diffusion of a high concentration to an area of lower concentration through a semi-permeable membrane also as Fajan's Rules of atomic Chemistry applied to the migration of electrons.
- b. As a metaphysically continuous extension of one system into another, where the second system 'Emerges' out of the potential created by the activity of the first. e.g. Morphogenetic Attractor [Langton C], Evolutionary Vacancy [Goodwin B] - as a Field in Psychology [Lewin K] and electricity [Ohm's Law, incorporating potential difference of energies as Voltage and resistance to the passage of energy from high to low potential.]

c. The relationship between the two systems can be empirically modelled by an inverse square power law i.e. The more one system increases in magnitude, the more the effect of the other system diminishes in turn. This can be more attenuated and imprecise at increasingly larger scales of relativity of mass.

d. A binary and tripartite arithmetic, can be used to model this transaction, where system A, system B and the common medium system C have a holistic relativity which can be represented as integrated or disintegrated in whole or part by 1's or 0's denoting on/off, extant/disabled, and further, there can be natural modalities and postponements and indecision added in by nature = D. [Boole G].

e. Every system is always in a state of transition from one state of integrity to another in any given context. A snapshot of this system includes a picture of what we can measure it to have been and what we can predict it will change into. Any process we measure therefore will be a snapshot of change at time 1 to time2, and from our logic we can see there are 27 possible natural states of integrity at time 1 and our system will emerge one of the other 27 at time2 from a possible set of $27 \times 27 = 729$ logical atoms.

From this metaphysics can be derived an Octal Arithmetic with an unusual concept of zero, for zero in this system has substance

i.e. There is no absolute zero.

The Semantic model and Metalanguage for [TRE]

System1 is denoted 'Macro', it is the umbrella of basic constituents and energy source from which emerges an energy transfer. E.g. the Sun this energy is then processed by the intervening system, denoted 'Meso' which has Structure and Mechanics e.g. grass, and other biomass that acts on system2 e.g. cow, a grazer in the context of human farming and agriculture. the grazer, 'Micro', which is the Evolutionary Asset or product of this chain of farming relativity. The cow is considered an evolutionary asset in some 'Context', e.g. human/sociological. This chain of relativity has given a general evolutionary opportunity for a herbivore.

f. Dr Plichta's model of Tripartite Relativity ISBN 1-86204-014-1, pub element 1997 demonstrates that 3'ness is an archetypal and a priori state with the mathematics of prime numbers, and demonstrates that Structure emerges and evolves out of mathematical chaos.

5. Order spontaneously emerges out of Chaos - a Natural Law

6. The Cosmos and its energies are in a state of Chaos, and emerge systems that are ordered, but all energy and all matter and all time have the characteristics of Chaos - they are Non-Linear, both in the Macrocosm and the Microcosm. [Schiffler's Horns paradox in mathematical topology.]

7. The properties of emergence modelled here, are Telic. i.e. end based and suggests that Emergence doesn't stop at causing system 2, but that successive systems emerge as part of an ongoing process.

8. Entropy and demergence are part of this dualistic process of Emergence, construction and destruction, but it is suggested [Langton and Kauffman in Levy S.] that this process of expansion and contraction occurs around a tendency to equilibrium e.g. the elements of Chemistry tend to transitional equilibrium states. These states may also be considered to be Complex states at the Edge of Chaos and the Edge of Structure and are self evolving and self-regulating.
9. The 20th Century 'heresy' of a claim to Essences is that of unfalsifiable absolute truth of at least a synthetic a priori nature.
10. There is a formal logic for the set of Essences producing various important languages; [TRE], [HX], [A], [G], [Ga],
11. These are limited and closed sets of Logically Real 'atoms' that are event descriptions between time₁ and time₂. So-called 'essential numbering'.
12. Energy and matter and component particles can be described by wave theory, turbulence and the standing waves or particles take on harmonic and octal attributes.
13. There are no fixed universal constants in the macrocosm or microcosm, just local processes undergoing infinite degrees of variation.
14. There are no fixed identical particles just classes of particle events with similar properties. I.e. there could be more than one version of the same atom with temporarily substituting particles and other exotic 'ghost's and fusions analogously mimicking others.

Supersymmetric theories predict the existence of more particles, none of which have been confirmed experimentally as of 2016:

E.g. Faddeev-Popov ghosts (also called gauge ghosts or ghost fields) are extraneous fields which are introduced into gauge quantum field theories to maintain the consistency of the path integral formulation. They are named after Ludvig Faddeev and Victor Popov. The ghost fields do not correspond to any real particles in external states: they appear as virtual particles in Feynman diagrams - or as the absence of gauge configurations. However, they are a necessary computational tool to preserve unitarity. Although issues with the so-called 'Particle zoo' are allegedly resolved there are still other possibilities such as; - (hypothetically) 'A mesonic molecule is a set of two or more mesons bound together by the strong force. Unlike baryonic molecules, which form the nuclei of all elements in nature save hydrogen-1, a mesonic molecule has yet to be definitively observed. The X(3872) discovered in 2003 and the Z(4430) discovered in 2007 by the Belle experiment are the best candidates for such an observation.'

15. This transference can be universally modelled by an inverse proportion law e.g. inverse square power law. There are many examples of the inverse square relationship working in; gravity, electricity, chemistry, biology, psychology, cosmology

16. Every material and ergonomic system and event is unique but can be classified according to similar properties. (Using Bertrand Russell's Set Theory, types, classes etc; *Principia Mathematica*, the landmark work in formal logic written by Alfred North Whitehead and Bertrand Russell, 1925 edn.2. Although unpopular because of certain issues with Logicism e.g. Russell writes :

'People were interested in what was said about the contradictions and in the question whether ordinary mathematics had been validly deduced from purely logical premises, but they were not interested in the mathematical techniques developed in the course of the work. ...'

Irvine, Andrew David and Linsky, Bernard, "Principia Mathematica", The Stanford Encyclopedia of Philosophy (Winter 2016 Edition), Edward N. Zalta (ed.),

e.g. *The Pauli exclusion principle, named after the Austrian physicist Wolfgang Pauli (1900-1958), states that no two electrons in an atom have the same four quantum numbers*

17. a. General Systems Theory called Tripartite Essentialism models every transference event outwith considerations of scale with appropriate Tripartite Knowledge Representation. b. Complex systems and objects can be modelled as being comprised of many simple (atomic) tripartite interactions.

18. Tripartite Essentialism labels every system in the Universe with 3 attributes: 1. Ingredients/structure in context of time [macro] 2. internal mechanics [meso] 3. qualitative [micro], this can also be represented by triples such as; object, process and outcome or noun, verb and adjective in natural language.

19. Generally, every physical system has three component zones and each of the three components has 2 attributes. 1. Endogenous 2. Exogenous - and this produces a total of six inverse-square power laws interrelationships with which to internally model every system, object, process and event in the material Universe.

20. The power of analogy can strip away arbitrary labels and expose and model the physical exchanges and processes that characterise every system at every scale. Spirals and vortices are aspects of fluid dynamics E.g. Supercluster vortex, spiral galaxy, planetary weather system, or the spirals within the 'god particle' aka Higg's Boson.

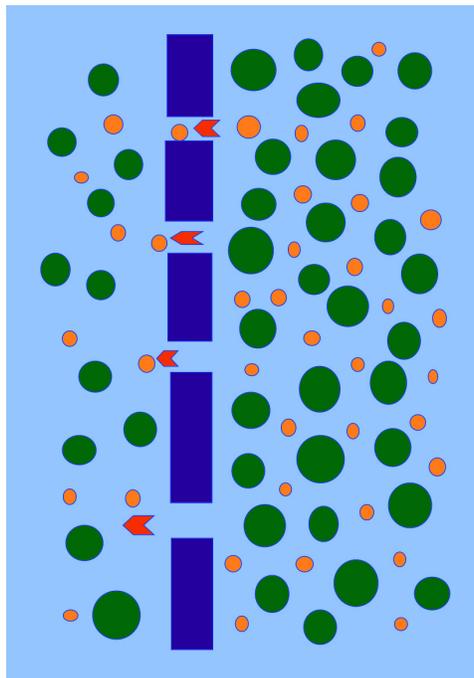
21. A transfer of energy between two points or systems via a common intervening medium is a process called Osmosis. [a Universal state of affairs i.e. some A to some B through some common C] The process of some stuff in high concentration moving or diffusing through a semi-permeable membrane to somewhere where that stuff has a lesser concentration is universal.

22. The most basic and tautologically true of an infinite number of transfers of energy in the Cosmos of 3 dimensions of space and one of time is that between at least two

systems. e.g. Dr Plichta's model of Tripartite Relativity ISBN 1-86204-014-1, published in 1997 demonstrates that threeness is an archetypal and *a priori* state with the mathematics of prime numbers, and demonstrates that Structure emerges and evolves out of mathematical chaos and that it can be uniquely tied to the shape of the chemical molecules of its origin.

23. This one basic transfer within and between all objects through a common medium of exchange can be modelled by science in several ways.

a. Osmosis. i.e. The diffusion of a high concentration to an area of lower concentration through a semi-permeable membrane also as Fajan's Rules of atomic Chemistry applied to the migration of electrons.



b. As a metaphysically continuous extension of one system into another, where the second system 'Emerges' out of the potential created by the activity of the first. e.g. Morphogenetic Attractor [Langton C], Evolutionary Vacancy [Goodwin B] - as a Field in Psychology [Lewin K, 1925] and electricity [Ohm's Law, 1827, incorporating potential difference of energies as Voltage and resistance to the passage of energy from high to low potential.] and in Physical Chemistry, Fajan's rules, 1923.

c. The relationship between the two systems can be empirically modelled by an inversely proportional power law i.e. The more one system increases in magnitude, the more the effect of the other system diminishes in turn. This can be more attenuated and imprecise at increasingly larger scales of relativity of mass.

d. A binary and tripartite arithmetic, can be used to model this transaction, where system A, system B and the common medium system C are a holistic snapshot of change and relativity which can be represented as integrated or disintegrated in

whole or its ABC parts by 1's or 0's denoting on/off, extant/disabled. Boolean algebra was introduced by George Boole in his first book *The Mathematical Analysis of Logic* (1847).

A snapshot or 'logical atom' of a changing event or process depicts at any time 1, that there can be eight (or 27 uncertain) essential states of that Tripartite Relativity. These 'essences' or 'atomic state descriptions' at time 2 can be any of the other eight (or 27 essential).

The number of possibilities for 'archetypal snapshots' /changes of state are modelled by a closed set of 64 logically real atoms or 729 logical modalities .

24. From this Tripartite Essentialist metaphysics can be derived an Essentialist Arithmetic with an unusual concept of zero, for zero in this system always has substance in relation to some context (unlike the definition of decimal numbers by an empty set by In Zermelo–Fraenkel (ZF) set theory, the natural numbers are defined recursively by letting $0 = \{\}$ be the empty set) i.e. There is no absolute zero, it is always zero in relation to some context.

In TRE infinity is always a finite essentialist number in a limited and closed set. (a set of essentialist numbers from the Language [A] (1 .. 729) E.g. where infinity is 729 (not a decimal or 'Real' number' but a system of numeration derived from base 27.) The unchanging essence of the set of 729 numbers depict transactions within some logical atom in any one of 729 archetypal states of integrity - in relation to some contextual process.

This makes intelligent computing possible because the universe can be mapped without recourse to computational recursion amongst an infinity of labels. (the Turing Halting Problem and also in Goedel's logical numbers, using TRE, logic can be superseded) Domain maps of the universe made up from the TRE Knowledge Representation System, its essentialist arithmetic and its TRE metaphysics allow progress in intelligent computation. Such maps without infinity, and set in terms of processes and basic empirical notation to illustrate the exchanges are easily interchangeable - so that an AI is never stuck enumerating an infinity of labels.

25. The Cosmos and its energies are in a state of Chaos, and emerge systems that are ordered, but all energy and all matter and all time have the characteristics of Chaos - they are Non-Linear, both in the Macrocosm and the Microcosm. Alexander's Horned paradox in mathematical topology illustrates chaos and non-linearity amongst linearity. The Alexander horned sphere is a pathological object in topology discovered by J. W. Alexander (1924)..] A Chaos, harmonic and Fluid dynamics paradigm

26. The properties of emergence modelled here, are Telic. i.e. end-based and suggests that Emergence doesn't stop at causing system 2, but that successive systems emerge as part of an ongoing process.

27. Entropy and demergence are part of this dualistic process of Emergence, construction and destruction, but it is suggested [Langton and Kauffman in Levy S.] that this process of expansion and contraction occurs around a tendency to equilibrium e.g. the elements of Chemistry tend to transitional equilibrium states.

These states may also be considered to be Complex states at the Edge of Chaos and the Edge of Structure and are self evolving and self-regulating.

28. There is a formal logic for the set of Essences producing various important languages; [T], [HX], [A], [G], [Ga], some of these language e.g. the language [A] are modal and model transitional states within transactions. E.g. 27 universal transactions at time 1 and 729 at time 2

29. These are limited and closed sets of Logically Real 'atoms' that are event descriptions between time1 and time2. Their enumeration is called 'essential numbering'.

30. The Universe of sub-atomic space is not empty or homogenous.

Some Predictions

time is Non-Linear.

matter and energy are absolutely fractal and non-linear.

there is no perfect physical form e.g. platonic forms are psychological wishes.

A particle is both a particle and a wave at the same time.

quantum theory and superstring theory need extreme revision

the big bang was local and not that big.

every kind of knowledge imaginable is 'a posteriori' or at best 'synthetic a priori'.

the cosmos of light matter can be entirely depicted with a universal wave theory.

Hawking was wrong when he said the cosmos is non-linear only at black holes.

Einstein was wrong to accept no aether.

There is No Higgs mass-less vector Boson.

The Copenhagen Interpretation of Quantum physics is wrong.

5th generation artificial intelligence is possible.

teleology is a valid science and can be empirically modelled.

A set of Logically Complete Essences is a VALID assertion.

mass and time and gravity are related in direct proportions.

energy and time are related in inverse proportions.

Certain elements will drift through other elements.

there is DNA based life all over the Cosmos.

DNA structure is a property of Chaos and emergence.

The second law of thermodynamics is not Universal - No Heat Death.

In cosmological context, matter Can be created and destroyed in contradiction of Newton.

telepathic processes have a rational model within the Phil. of Mind.

There will be no Big Crunch - or Universal Collapse.

Tons of problems science thinks of as Paradoxes aren't really paradoxes at all .. e.g.

Collapsing Clone Paradox – non-linear genetic garbage is essential !!.

1.2 HARMONIC CONTINUUM THEORY.

1.2.1. The old Paradigm.

Einstein and the establishment agreed in the late 1930's, in Copenhagen, that having a quantum paradox at the heart of physics was a good idea. Also, that the speed of light should be fixed at a constant and that there was no aether or grainy bits in space that would hold travelling photons up. Logically therefore the sky should be white at night noted Olbers c.1920. A paradox suggested the establishment. Olbers Paradox.

In astrophysics and physical cosmology, Olbers' paradox, named after the German astronomer Heinrich Wilhelm Olbers (1758–1840) and also called the "dark night sky paradox", is the argument that the darkness of the night sky conflicts with the assumption of an infinite and eternal static universe. The darkness of the night sky is one of the pieces of evidence for a dynamic universe, such as the Big Bang model. If the universe is static, homogeneous at a large scale, and populated by an infinite number of stars, any sight line from Earth must end at the (very bright) surface of a star, so the night sky should be completely bright. This contradicts the observed darkness of the night.

This paradox is allegedly explained by the fact that the Big Bang theory also involves the expansion of space, which can cause the energy of emitted light to be reduced via redshift and diverted into the cosmic background radiation.

Although there is strong evidence that an absolute Big Bang never happened [Lerner, 1992]. It is still possible that such cosmic expansion is a localised event which has to mean at some point that the sky should at least be a lot lighter.

The best explanation for the reason the sky is dark at night though is that it isn't that stars far away are not emitting enough radiation, but that the aether is acting as a resistance to the passage of photons.

Peter Plichta in his prime number mathematics of threeness which absolutely maps out physical chemistry, suggests that:

' It is probable that neither Einstein nor other physicists even toyed with the idea that the absolute value of the speed of light, which they calculated at 2.9979, could in fact be the number 3, or more correctly, three times the number 10 to the 10..' [Plichta, p.126]

Although the seeming inaccuracy of the measurements appear to contradict Plichta's sense of the absolutely rational, he perhaps fails to observe that the reason the speed of light is not faster – its because Aether has been holding it up somewhere.

The dark night sky disproves Einstein's Theory of Relativity. We know the sky is black at night and that was the paradox noted by Olbers in 1920. Something is holding up the light to make it dark, and that whole paradox is really proof for the aether that Einstein and the establishment wanted so badly to ignore. Of course people will answer to Olbers that the Universe has been measured finite, but how could we ever rationally say that when we have never measured the Dark Matter within it.

'All the stars, planets and galaxies that can be seen today make up just 4 percent of the universe. The other 96 percent is made of stuff astronomers can't see, detect or even comprehend.

These mysterious substances are called dark energy and dark matter. Astronomers infer their existence based on their gravitational influence on what little bits of the universe can be seen, but dark matter and energy themselves continue to elude all detection.'

<http://www.space.com/11642-dark-matter-dark-energy-4-percent-universe-panek.html>, Space 2011, and in, 1998 Scientific American

NASA though are more conservative with their statistics .. *'More is unknown than is known. We know how much dark energy there is because we know how it affects the universe's expansion. Other than that, it is a complete mystery. But it is an important mystery. It turns out that roughly 68% of the universe is dark energy. Dark matter makes up about 27%. The rest - everything on Earth, everything ever observed with all of our instruments, all normal matter - adds up to less than 5% of the universe.'*
<https://science.nasa.gov/astrophysics/focus-areas/what-is-dark-energy>

This then is obvious nonsense from both the Scientific American and NASA. How can anyone possible supply a statistic at all if the quantity being measured it Totally unknown.

The excuse from NASA that they can predict dark matter amounts because they can measure its impact on our Universe !! Who said this is all of the Universe and who said that all of dark matter is involved with us in this part of infinity ??

We build TV's and computers or any other electrical technology like some black box, yet our understanding of logic of the vital processes at the heart of it all is actually less than nothing. If we look closely there are paradoxes not just at the heart of physics, but at the heart of everything we think we know about the universe. Our logic isn't logical, [Göedel], our philosophy of arithmetic is about nothing in particular, [Zermelo Fraenkel] and our physics is paradoxical. [Superstring theory]. The odd thing is that the thirty or so really crippling paradoxes are all really the very same one, but just dressed up differently in the specialist language of each discipline.

That is, every paradox could be solved by taking into account its interaction with the bigger picture or context from which its processes have emerged. The very opposite of how every reductionist scientist today has been trained to think. *Methodological reductionism*: the scientific attempt to provide explanation in terms of ever smaller entities.

Let's be clear, though, about what I'm saying. Yes, there is plenty of scientific evidence and results to talk about particles and show what particles can do. But current quantum physics and super-strings is a model or a construct. It is a vehicle on which to drive forward; it is a frame on which to hang the experimental results. There are better frames and better vehicles. However, what quality of vehicle are we talking about when we talk of quantum physics and superstrings ? The answer has to be a unicycle.

In comparison, the amount of Rolls Royce genius that has been repetitively ignored for at least the past hundred years by the establishment, has been criminal. We had

Maxwell and Faraday in the 19th Century, Tesla and Brown in the early 20th Century and De Palma and Searle in the 1990's. Also, a whole gaggle of others; all these people knew how physics really worked and how to tap into the really free energy of the cosmos. This was all against the wishes of the Einsteinian theorists and the oil companies.

There appears to be a stubborn resistance to the idea that from the sub-atomic aether emerges for free - new particles and energies on a constant basis. E.g. Tesla called this idea 'environmental energy'.

Due to the advances of empirical technology, in 2012-2017, science had the ability to measure the animation of small particles that should be inanimate.

Does science conclude this is due to the chaos of the sub-atomic emerging into our 'light matter', no, science is calling the instances where things which should not – actually are, moving about a new sort of exotic matter called 'time crystals'.

Rather than concede to a basic chaos paradigm for aether, physicists are willing to invent stuff – such as '*time crystals*' !!

"*Magical realism*", perhaps the most common term for 'fabulism', often refers to fiction and literature in particular, with magic or the supernatural presented in an otherwise real-world or mundane or rational setting.

According to the scientists - "This is a new phase of matter, period, but it is also really cool because it is one of the first examples of non-equilibrium matter," said lead researcher Norman Yao from the University of California, Berkeley.

"For the last half-century, we have been exploring equilibrium matter, like metals and insulators. We are just now starting to explore a whole new landscape of non-equilibrium matter."

First predicted by Nobel-Prize winning theoretical physicist Frank Wilczek back in 2012, time crystals are structures that appear to have movement even at their lowest energy state, known as a ground state.

Usually when a material is in ground state, also known as the zero-point energy of a system, it means movement should theoretically be impossible, because that would require it to expend energy.

But Wilczek predicted that this might not actually be the case for time crystals.

<http://www.sciencealert.com/scientists-have-just-announced-a-brand-new-form-of-matter-time-crystals>

Tesla's 'Theory of Environmental Energy' [1938] suggested allegedly that energy permeates and interpenetrates everywhere. I say allegedly because it was impounded by the government of the day. The cosmos runs on harmony, resonance, musical scales, and the mathematics of wave theory and 'eightness'

From subatomic and chaotic aether, a standing wave particle pops out into our Light matter like a note from a cello - and that the particle is not disconnected from the background chaos from which it comes.

A three-dimensional standing wave is sort of spherical because it is being emerged simultaneously from all points of the compass in 3-d space.

It is both a particle and wave at the same time – thus no ‘particle wave / collapsing wave paradox’ !!

More shocks lay ahead for me, however. Taking a rummage through a dusty old cupboard in the Edinburgh Theosophical Society one day in 1985, I found this bundle of yellowed paper (dated 1920) with instructions to destroy in the event of the owner’s death. It was an esoteric secret school Illuminati Degree. I opened up the bundle with glee, but discovered to my horror (well, it was for my ego), that in those pages was the theory that I thought I had invented; the theory of ‘emergence,’ ‘threeness’ and harmony, based on Hindu and Sanskrit writings dating back 10,000 BC. [as; ‘Logos, Outpourings and Vehicles’. Vol 1 Secret Doctrine, Blavatsky, HP, 1875, Madras] As we all know, there is nothing new about real truth, but the Illuminati Secret Schools have been teaching the reality of science, free energy and emergence to people for millennia.

The Platonic and Aristotelian school’s harmonic math briefly emerged into art schools during the renaissance, but it never made it into science and technology. If it had, we could all have been flying antigravity machines in the 16th century---much like the technical designs of the Vimanas of the ancient Hindus, which were preserved in caves written on palm leaves. Presumably, after some cataclysmic Earth change thousands of years BC, that may have sunk what we think of as Atlantis and given the Sphinx 12000 year old water erosion.. The same theories written in Sanskrit have been re-invented time and time again by bright human scholars.

The 1990’s spate of really, (obviously) good theorists have come to grief looking for peer acceptance and publication. People like; Peter Plichta [1997] ‘prime number code’, Ray Tomes [1992] ‘Tomes Harmonic Theory on redshift’, Frank Searle [1999], Townsend Brown [1935], ‘Biefeld-Brown effect’ etc

Other theories e.g. Lord Kelvin in 1903 with his atomic vortex theory and other late 19th Century contemporaries such as; Boyle [Gas Laws], Hooper’s aetheric field theory of 1903

If you want to scientifically test the basis of; universal resonance, telepathy, harmony of the spheres and the very nature of the cosmos, get two acoustic guitars, tune them up and set them so that they face each other. Strum one guitar and you will notice that the other guitar starts to resonate in harmony.

If you want to understand how it is that free energy is only a phone call away, think of a hydroelectric dam. The universe is full of aether and subatomic particles all buzzing about and bubbling out all over the place. They are very chaotic and it is a natural law that out of that swirling vortex, order emerges. Just like the red spot on the planet Jupiter. The planetary super storm on Jupiter has a red eye that looks solid and stable.

In fact, the particles of the cosmos are all like eyes in the energy storms of the cosmos. All of that activity exerts its own pressure on the fabric of the cosmos, and like the waters of a hydroelectric dam, they have a pressure against the wall. When we spin an electromagnetic plate to get free energy as; Faraday, 1890, De Palma, Brown and numerous others have done, it is like opening up a sluice in the dam and the weight of energy pours through, driving our turbine. If you have ever wondered

what it would be like to solve the most difficult paradox ever known to the minds of the world's greatest physicists, let's give it a try and see how easy this is. Scientists cannot figure out whether a particle is a particle or a wave. As far as they are concerned, it cannot be both.

It is both, however. But, the real question is: What is a particle? Is it a billiard ball or do we need a more holistic non-reductionist explanation that says that every particle is part of something much bigger? That insight would actually help solve the paradox and stop physicists from saying that particles are telepathic. There is little danger that scientists - who are trained reductionists, will make that connection, though. Particles really emerge like notes out of the endlessly playing chaotic symphony.

The chaotic vortex of small and big particles that make up the cosmos is constant, like an orchestra playing an eternal symphony. But, it is an orchestra that we cannot technically see, thus far. Out of this orchestral symphony, ordered notes continually emerge, like the red spot of Jupiter:- order emerging out of chaos, waves of particles - like waves of music. Particles are waves and it is only a paradox [i.e. the collapsing wave/quantum paradox] if we think that a particle is a finished article, something that is a completely isolated end product, like a snooker ball. A reductionist scientist today only sees the snooker ball.

The reality is that a particle is like a musical note that is continually being played by a violinist, and it can change and become something else under the right conditions. Our snooker ball could become a tennis ball.

Plichta's theory of physical chemistry notes that there are eighty one, or three to the four stable, elements. Other unstable elements such as Uranium are naturally decaying via tripartite processes back down to stable isotopes of lead, but I suspect the spike of free energy that caused the fusion of elements and particles that became Uranium came from a Bang in this part of the Cosmos. As I don't subscribe to Big Bang theory because of the mountain of refutations that call it into question e.g. collated and updated on the website by Lerner, thebigbangneverhappened.org, - I think that a local Bang was responsible for spiking the matter around here in this part of the cosmos.

If that is true we may ask – why is there not more highly radioactive elements saturating our local cosmos ??

All of today's experimental results in physics have foundations in 'threeness', e.g. RGB Quarks, and 'eightness', e.g. 'Pauli Exclusion' and have the arithmetic of harmony. But that never seems to lead to a simpler understanding of the Cosmos.

Scientists like Hawking's continue to promote Darwin, probably knowing it's all a lie. E.g. Schiffler's Horns Paradox in Hawking's field of mathematical topology is actually the absolute mathematical proof of universal chaos and non-linearity yet chaos concepts in Hawking's universe are neither professed or espoused. Richard Dawkins' book, 'Climbing Mount Improbable,' tells us of the slow painstaking climb involved in the evolution of the complex organ of the eye and how the human race acquired it after millions of years of painstaking evolution. Darwin's idea of a computer though was an abacus.

His Cambridge compatriot biologist, Brian Goodwin, however, tells us that the eye is an organ which can spontaneously evolve or devolve at will (in a flash in an instant), and has chaos and complexity models on computers (of *Acetabularia* spp.) to prove that. In other words, the eye emerges spontaneously to fill the need; it doesn't take millions of years of improbability and slow Darwinism.

The establishment rhetoric is that now we have to depend on NASA and the petrol engine to save the day. But! Sorry folks, there isn't enough petrol around to get all 6 billion people off this planet or sustain them.

The power of analogy can help us model the unknown. For example, It can give us a real clarity on eternity and dimensions. In the heavy dark masses of matter and time that we wade through (temporarily divorced from the eternal wellspring of energies and youth), we are like deep-sea divers at the bottom of a weighty gravity ocean. Our life force comes in packets of food, like bottled oxygen; our movements are slow and cumbersome, our outlook, murky.

If we run out of food or oxygen, we run out of life force. However, by analogy, eternity, dry land without the cumbersome diving suit of our physical body, must have sunshine, oxygen and life force aplenty, without restriction. The power of analogy can save the world; it can solve problems and break down communication barriers, yet it is not a taught discipline.

Organic looking, probably electromagnetic life forms in space are filmed regularly by NASA - probably many of the 'ships' and 'ufos' seen by the ISS are actually interdimensional life forms independent of oxygen and gravity but powered by an electronic form of oxidation an analogue of biological life that uses oxygen.

' In the solar system, there seem to be only two planets--Venus and Mars--capable of sustaining life such as ours: but this does not mean that there might not be on all of them some other forms of life. Chemical processes may be maintained without the aid of oxygen, and it is still a question whether chemical processes are absolutely necessary for the sustenance of organized beings. My idea is that the development of life must lead to forms of existence that will be possible without nourishment and which will not be shackled by consequent limitations. Why should a living being not be able to obtain all the energy it needs for the performance of its life functions from the environment, instead of through consumption of food, and transforming, by a complicated process, the energy of chemical combinations into life-sustaining energy?..'

TALKING WITH PLANETS, Nikola Tesla, Collier's Weekly, February 9, 1901,

Indeed some of the life looks oceanic in nature e.g. the 'Taether footage' of the Shuttle STS75, feb 25, 1996. Perhaps feeding off the 'electromagnetic reef' of the Van Allen Belt, and it could be that images taken by Apollo 8 showing some sort of floating interplanetary root system are of a form of life specialised to feed off the feeders etc.

Further, in 2012, NASA's solar observatory filmed what looked like some huge 'mushroom domed' creature drawing off plasma from our stars surface before leaving a splash as it disconnected its feeding process !!

The culture shock of our modern day Gulliver on his space travels may have been hefty on seeing smallish oceanic life not needing ocean, oxygen or time and gravity as they would know it, but must have reverted to shock on seeing a jellyfish bigger than Jupiter use the sun as a snack bar !!

When NASA shut down the public data feed on the ISS they shut down a living display of life beyond death on this planet and they hide from public view the living proof that our scientific paradigm on earth is a capped and engineered materialist charade. Why give us a vision of death with no hope ? Why must we be disconnected from eternity ? What benefits ?

Whilst transhumans try to upload the thoughts and processes driven by our interdimensional souls into a matrix and pass the product off as cyborg heaven on earth. In the images of deep space pondlife grazing in our invisible electromagnetic interplanetary reef we have the certainty that there is an energy stairway to heaven. For at last we can speculate on what Angels breathe. Whilst the living refutations of existentialism, logical positivism materialism etc parade before the ISS cameras the human race can take a breather and not live in fear ... And although I disagree with John Lennon that we should imagine there is no heaven .. It is actually getting less easy to imagine that ... I do agree that all we need is love .. That has to be the light from the remote lighthouse on the other side of the pond.

The population, though, is not being allowed to analyze or analogize, or basically, to think. An age-old 'science conspiracy' has wasted the potential of generations of young able minds by adopting the think-tank idea that too many highly educated people are a drain on planetary resources.

'In an admission posted directly on UNESCO's website in a document about the agency's "Education for Sustainable Development" They state that:

"Generally, more highly educated people, who have higher incomes, consume more resources than poorly educated people, who tend to have lower incomes," the UN "toolkit" for global "sustainable" education explains. "In this case, more education increases the threat to sustainability." New American, 2014.

e.g. There is no absolutely perfect circle delineated in any physical reality; from the mathematically unsatisfying imperfection of PI to the fractal nature of any physical rendering of the circle, whether electronically or more physically. Unfortunately, the Paradox called Schiffler's Horns has been discarded from some University mathematical textbooks.

e.g. Concise Encyclopaedia of Mathematics, pub. CRC Press, London, NY, Washington DC, 1999, Weisstein EW ed. P1597, cites a 'Schiffler Point' but no 'Schiffler Horns'.

1.2.2 The new Paradigm.

Whatever truths come upon us; whatever future we have in store, we must gear ourselves up for a change of perspective. We have been exposed to the nonsense of science for such a long time, that it will be a hard effort to replace what "we think

we know" with reality. The 'Conspiracy' against chaos theory for example has seen to that.

The big Masonic motto 'order and chaos' of the 33rd degree is a dead giveaway that sounds like chaos science is the second ordering principle in the Cosmos – for as we have known for millennia and not told – order emerges for free out of chaos causing fusion and free lunches. Also at the heart of the matter amongst the transitional elements of a transitional planet in a tertiary cluster of recycled stardust there emerged life almost spontaneously by the non-Darwinic law of Emergence – a gift of chaos – a free lunch. The ease of emergence of self-assembling DNA has been wholly or partially modelled by; Goodwin, Kauffman and Langton. e.g. [www.santafe.edu] 'self assembling auto catalytic polymers'.

In our solar system, the nine or twelve planets circle the Sun at harmonic intervals with their distribution of elements tending to be the most diverse in the centre of the chain of planets at planet Earth, non-metallic to the exterior fringe, heavier metallic towards the star, and mirror in many ways the periodic table of elements. Complexity and Life is always in the middle, like earth at some 'Goldilocks zone' of not too hot, not too cold etc The habitable zone may also be called the "life zone", "comfort zone", "green belt" or "Goldilocks zone". One in five stars has an Earth-sized planet in the habitable zone. However, it is not known what proportion would have conditions suitable for life.

At the heart of all energy or chemical interactions. In the central transitional elements of the periodic table of chemical elements, exactly where Earth is in this analogy, complex interactions in both our biochemistry and the chemical elements of our solar system can be sustained by a self-regulating equilibrium.

On the one side the entropy we know – on the other side the free emergence that we are banned from knowing. In the centre of the traditional periodic table of chemistry's square arrangement of chemical elements are the transitional elements, and also iron and carbon upon which facilitative platform biological life is based. In the centre of the solar system we have planet Earth home to biological carbon and iron based life taking up diverse chemical themes whilst noble gases accrue in Jupiter and Saturn and the more metallic planets are parked closer to the sun. By a law of mass and ratios it is no random chance that the planets are so aligned, for as the elements of chemistry have harmonic signatures, distributions and properties, so have the planetary orbits and probably the tendencies of the planetary geology. Our solar system therefore looks like the periodic table of chemistry – I posit, but it doesn't stop there, for so does the galaxy.

The new 2005 chemical galaxy periodic table conforming to Newland's 1884 Law of Octaves shows the elements arranged by harmonic intervals spiralling out from the centre like the archetypal spiral galaxy each lined up at different harmonics. It was Ray Tomes in 1992 who spotted from calculations in red shift that the stars and galaxies move apart from one another at harmonic intervals. The cosmos therefore is a harmonic based chaos system.

Chaos structures such as the vortex – a spiral weather system performing harmonic mathematics in scales as small as the subatomic aether to as large as the super cluster show that the cosmos is based on the rules of harmony and chaos. Plichta shows that these chaos vortices normalise into very specific mathematical formats. [Plichta P. 'Gods Secret Formula', 1997]

The chaos spiral or vortex of the 'chemical galaxy' could very well be the model for the archetypal atom which can facilitate no more than an octet of eight electrons in a shell [e.g. Pauli Exclusion Principle]. Everywhere we look in the microcosm, we can begin to see the macrocosm – very much 'as above, so below'.

Another free gift of chaos is free energy or emergence. Also noted as a rearming after the Big Bang and a rearming after quantum particles tear away from one another, the 'Unruh Effect' illustrates that the chaos law of emergence supplies the material we can see with the substance of the aether that we cannot. When we tear away the particle or mass - the top of the fire hydrant from its locality we release the powers that supply it.

Particles are watery harmonically structured 3D swirls in the turbulence of the aether – they are not isolated billiard balls and when they are scooped out, nature abhors a vacuum and fills it for free. [Unruh Effect]

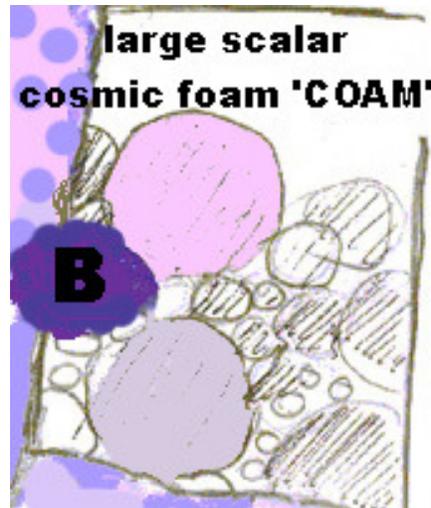
The sub-atomic reservoir has a natural pressure, caused by the energy of the sub-atomic 'waters' pushing out and creating the 'concrete' atoms. This is called the law of emergence. Emergence was studied at the Santa Fe Institute and discovered to be contravening the second law of thermodynamics within the context of performance within biological systems by Chris Langton. [Levy S, 'Artificial Life' pub. Penguin 1993, ISBN 0-14-023105-6]

'The hypothetical Unruh effect is the prediction that an accelerating observer will observe blackbody radiation where an inertial observer would observe none. In other words, the background appears to be warm from an accelerating reference frame; in layman's terms, a thermometer waved around in empty space, subtracting any other contribution to its temperature, will record a non-zero temperature' from Wiki.

Such fluid and particulate turbulence have been noted in the flame-like properties of electromagnetic discharges. For as fire burns in air and oxygen following air turbulence – so too is the effect of aetheric turbulence on travelling particles in an electromagnetic discharge – producing fire in the rarified turbulence and atmosphere of the aether. Chaos and turbulence models at all scales show that the universe is unified with itself and is a chaos and fluid system operating on harmonic principles.

An arithmetic array that subtracts rows and columns of recycling 1- 13 that comprise all possible harmonic intervals on the scale produces helical DNA patterns called 'the loom of Maya'. Helices are common to harmonics and harmonics are common to the aether and particles. In this analogy, each biological life form is a super cluster on the planets surface. The structure, geography and distribution of biological life on planet Earth can be used as an analogy like this because the Earth itself is an effect of a harmonic distribution in both a physical and chemical sense.

From the many diverse analogies that can be derived from `as above, so below' I would like to make the assertion that the superstructure of our own cosmic bubble in the greater cosmic foam conforms to the structural analogy of the solar system. In particular, our solar system.



Our particular Cosmic bubble will be full of Superclusters, that basically look like seaweed in a rockpool !

Super clusters e.g. Laniakea Supercluster tend to be formed of galactic clusters and can look like the fractal filaments of seaweed (fucus). Like the three-ness and harmonic ingredients of DNA on Earth and Mars, but not so much on the extremes of temperature and pressure on the other planets of our solar system. To take the analogy of the solar system further, let tertiary star matter galaxies in the cosmos be equivalent to biological life on planet earth. Tertiary star matter is the product of star dust that has been formed from the fusion and explosion of elements that were part of the first hot and unstable stars. Tertiary star matter therefore is the dust from primary and secondary stars and their cycles that coalesced to form the tertiary stars.

We can say that intelligent as we know it life is anthropoid and it is a tertiary product. We can assert that anthropoid life is relatively rare in comparison to e.g. phylum insecta. It may be for instance in Cosmic life that the insectoid formula is prevalent more than the anthropomorphic. In nature in Earth, this formula holds, whilst bacterial and viral life is in even greater abundance. It would follow that anthropomorphic life and relativity is rare in our cosmic bubble and perhaps other bubbles too. By using the structural model of the Earth as our bubble and the distribution of DNA like the helical patterns of the super clusters themselves we can predict that they tend to be distributed around a big planetary sphere or bubble in which is dense low frequency material.

There will be some `biological' life-bearing/constellations and clusters inside the geology and core of the super cluster bubble, but these may not be life as we know

it. Perhaps taking the inference of a dark underworld in need of light or energy. With super clusters arraigned around the periphery of the cosmic bubble on the surface of the sphere, there would be a central sun, the light of God holding our planet cosmic bubble in place, and almost certainly side by side in a harmonic pattern would be a whole solar system of adjacent planes or planet bubbles to which we are adjoined. Perhaps some containing super cluster forms and biology and life as we would recognize it.

This analogy would suggest that the Cosmos and the Cosmic foam is a vast place held together by the bright life-giving God of love. At the very least bound by the physical life-force that drives the ecosystem of super clusters and is in it and which binds every form together in the light. Using the organic analogy further, knowing what we know about the suns output and global warming – it may be that the life force of the beings in the super cluster coated (geographically Earth-like) bubble will be driven to the challenge of growth and spiritual and material evolution in some future epoch – to collaborate to travel the vast distances between the next cosmic portal and bubble beyond the little set of bubbles in our local solar system cosmos.

A publication by I. Fuentes-Schuller and R. B. Mann on quantum entanglement in Physical Review Letters 2005 shows amongst other things that Quantum entanglement research proves that acceleration of related or entangled particles from their origins creates a `thermal bath'. In my words, movement between related particles tears the subatomic aether that supports and feeds the particles – causing i.e. a 'thermal bath' or my words, free energy. There was a thermal bath after the Big Bang and there is a thermal bath at Quantum level today's physicists and cosmologists are probably 'bathing' in free energy.

Hennessey's Harmonic Continuum Theory predicts that: particles are continually emerging standing waves emerging as a weather system at the top of a pyramid of relativity - energy that is fed into maintaining the particle in its locality can be bled, released and generated by tearing the particles from their locality. E.g. rotating discs. The tearing effect produces the `thermal bath' effect known in quantum entanglement.

Academics don't have any reason to believe that particles are externally supplied and refreshed. Super strings and Einstein do not cover the law of Emergence and total interconnection within a fluid environment. Theirs is the pristine billiard ball that cannot be a particle and a wave at the same time.

The hidden extras in reality that physicists allegedly cannot grasp is that a particle is both a wave and a particle at the same time because the particle is intimately connected with and derived within the fluids of the aether. A particle is a standing wave made out of harmonic folds of aether, a storm system like the red spot in the eye of Jupiter. Move a particle or mass by breaking its field relativity away from the pyramid of energies that continually feed it and free energy to the value of the energy in the core of the particle will pour through the gap. This is called the Unruh Effect ... we just call it free energy.

There is a long list of 'fringe heretics' no longer with us to guide us on this new journey into the future possibilities of Interstellar space.

'Tesla emphasised that his concept of alternating current, AC, using rotating magnetic fields involved new principles rather than refinements of pre-existing work ... But was Tesla the first to conceive of a rotating magnetic field? The answer is no. The first workable rotating magnetic field similar to Tesla's 1882 revelation was conceived three years before him by Walter Baily, who demonstrated the principle before the Physical Society of London on June 28, 1879

According to Tesla's lecture prepared for the Institute of Immigrant Welfare (May. 12, 1938), his "Dynamic Theory of Gravity" was one of two far reaching discoveries, in 1893 and 1894. The "two great discoveries" to which Tesla referred, were: 1. The Dynamic Theory of Gravity - which assumed a field of force which accounts for the motions of bodies in space; assumption of this field of force dispenses with the concept of space curvature (ala Einstein); the aether has an indispensable function in the phenomena (of universal gravity, inertia, momentum, and movement of heavenly bodies, as well as all atomic and molecular matter); and, 2. Environmental Energy - the Discovery of a new physical Truth: there is no energy in matter other than that received from the environment. In (1935), Tesla said it applies to molecules and atoms as well as to the largest heavenly bodies, and to "...all matter in the universe in any phase of its existence from its very formation to its ultimate disintegration.'

Tesla's aether is thrown into "infinitesimal whirls" by the action of 'life-giving' force. Which then become 'ponderable matter'. That when the force subsides and motion ceases, matter reverts to the aether (a form of "atomic decay") That man can harness these processes, to Precipitate matter and energy from the aether..

William R. Lyne, 'Occult Aether Physics', ISBN 0-9637467-6-6

Current beliefs held by the 20th century Science paradigm have it that atoms of the same kind are 'absolutely' equivalent, subject to the paradoxes of Super strings and Quantum Physics e.g. the 'collapsing wave paradox' or, the 'particle-wave duality' paradox.

However, these 20th Century theories do not perform in their 11 or 26 dimensions e.g. Super strings, and in terms of their internal consistency, cannot unify the forces they represent with the labels they possess e.g. gravity and electro weak. However, certain of the mechanics of the atomic processes that have been observed, modelled and quantified, possess consistent mechanics and behaviour from which predictions in new models can be made. E.g. a harmonic model.

These observed properties, perform around certain tripartite fundamentals of reality. e.g. 3-part quark, or 8 electrons per shell in the 'Pauli exclusion principle', or 'Regge resonances' or harmonic representations of the periodic table of chemistry e.g. Newland's 'Law of Octaves 1864'.

With the famous gas law Physicist Lord Kelvin attempting to introduce a theory of aether in 1901 based on his knowledge of fluid and turbulence, the scene therefore was certainly established to deploy constructs around the harmony of the spheres. Isaac Newton's law of planetary motion indicated orbits of harmonic interlude around

the star, and indeed Ray Tomes in 1991 published Tomes Harmonic Theory based on analysis of Cosmological red-shift data that demonstrated that there were harmonic components amongst the expanding star fields.

In Paris in 1992, University research using chaos theory demonstrated that the perceived regularity of planetary motion and harmony was a metaphysical illusion as the minute microscopic deviances within planetary gravimetric interaction and displacement could be more precisely accounted for using chaos theory. A Particle is in effect a three-dimensional standing wave - in a different state from its continuous source of supply from the emergent properties of the aether. All the mathematics of wave theory, resonance and harmony would apply to its physicality and would fit with the 'eightness' and harmonic tendencies in the observed data. e.g. Fourier and Laplace mathematical transformations. Taking the implications of non-linearity further, it can be said that atoms belong to observed groups with similarly classified properties. I.e. 'Class Atomism' : Hennessey 1991, and that no two similarly classified 'atoms' are absolutely identical due to their Chaos Ontology. This theory predicts that a particle is analogous to a note, and that on a Cosmic scale the qualities and properties within and between Classes of atoms or notes will vary in a fluidic and fractal way. e.g. relative textures, tones, attack and decay [cf. Music in vivo] with each particle/note will mean that some matter can be relatively more 'audible' in the local Cosmic energy mix. i.e. Some matter may not co-operate with expectations i.e. Have a different perspective to the relative observer in time and space.

This matter, at some higher harmonic interval, may be able to drift through other matter - and that would hold whether the states were relatively similar e.g. metals, or different.

e.g. the Tripartite proposition of classes of matter:

Light Matter
Opaque Matter
Dark Matter

These properties are dependent on the state of the invisible subatomic weather system from which the particle emerges. e.g. 'opaque' iron could pass through dense iron. [See below] There would, apart from an expected migration of electrons, be also a migration of protons and even neutrons, as the intrusion of larger packets of emergent energy, inconsistent to the local equilibrium of material interaction with the sub-atomic aether drew upon the local 'a priori' atomic reservoir by Fajan's Rules, to create new particles.

Fajan in essence said that Big atoms donate to small atoms across a common medium. The same transference criteria applies to other field behaviour definitions such as Ohm's Law and Voltages in electricity, and in osmosis in Biology, and transference in Lewin's Field theory in Psychology. i.e. A to B, through some common C, where in reality, depending on the scale of the transaction or donation, C

would be of varying impedance. The sizes of the 'new particles' would be dictated by the atoms within their point of entry to 'light matter' and also by the size and constraints of the unfilled energy packet. E.g. *ghost meson*.

A big emerged energy packet [EP] of size² at time¹, newly intruding into local smaller atoms might produce noticeable material degradation and inconsistency in atomic behaviour and would create new and larger atoms as the energies from the new packet augmented the locality. Whereas, a big emerged energy packet of size¹ amongst larger atoms at time¹ might have a less noticeable effect. The intrusion of new energies into this cosmos is a continual process and has been noted in observations of dark matter. At time 2, after intrusion and diffusion however, in all cases, there is more matter and more energy to repair any entropic degradation, as our light matter 'normalises' around the more usual emergence 'pressure' or gradient. This constant creation and augmentation, though, does upset the medieval appellation as it contradicts Isaac Newton's Law that states that 'matter can neither be created or destroyed'.

The transference gradients and the 'a priori' size of the atoms and their relative capacity to contribute from within their atomic environment – which may consist of other atomic types in aggregate – would influence the sizes and types of new particles discovered.

There may be 3 classes of these atomic properties; 1. Light Matter which would be relatively sub-atomically stable 2. Dark Matter which would be relatively sub-atomically unstable. 3. Opaque Matter - a relative state between 1 & 2

I shall designate that our current Cosmos is Light Matter [LM], and that some place in and around and in between our reality that we cannot see supplies its energy needs by emergence. This supplier is Dark Matter [DM] and that we may be able to detect this activity by taking note of certain hybrid interstitial states of material that may have unusual and unexpected properties in any given context. [e.g. the well documented 'particle zoo' of theoretical physicists.] This hybrid, interstitial type of matter, analogously, wild unregulated matter I shall designate Opaque Matter. [OM]. As the physical Cosmos has no absolutely fixed properties, due to its ontological non-linearity and innate chaos, the status of 20th Century 'constants' must be challenged –

e.g. it is predicted that the speed of light [Einstein's 'c'] is not an absolute Universal constant, nor would the relative behaviour of time be constant and ontologically homogenous either. Similarly, e.g. Planck's constant - distance between atomic shells is not a constant 's'. Planck's Constant, the idea that electron shells are a fixed distance apart can be challenged by this new atomic model. The pressures from the continual intrusion of newly emerging energy from the aether into and around atomic packets create new electrons, protons and neutrons. This pressure is driven by local cosmic chaos and is variable, and consequently the distance ratios between the electron shells in atoms are variable, not fixed as Planck suggested. Distances between electron shells are dictated by the underpinning frequency of vibration and emergence in the local aether. This pressure Compresses and constrains the atom into shape, a three dimensional standing wave with resonant shells continually supplied and created from events in the emergent aether outside the nucleus.

Emergence from Dark Matter drives the continual formation and reformation of new electrons, protons and neutrons, in Light Matter, offsetting local entropy. It is not a waste of physics research funding to re-use older experimental data on better and more functional models. That after all was the basis and theory of rational scientific practise as outlined by e.g. Karl Popper in his 1963 publication of 'Conjectures and Refutations'.

The famous two atomic clock experiment created by the Physics establishment to substantiate Einstein's relativity, in truth, substantiates the alternate hypothesis of time as a radiated effect of mass and gravity. With two allegedly identical atomic clocks, set at identical times, one on the ground and one in a very high altitude jet aircraft, it was found that the high altitude clock had experienced less time when the jet aircraft landed and became relative to the ground.

The empirical results and data from that experiment although used upon the constructs of Einsteinian relativity, when used on the Tesla and Hennessey model substantiate the idea that time is a field-effect of mass. The very high altitude aircraft under conditions of lesser gravity than e.g. 9.81 ms was also, by this new model, travelling through different atomic conditions for time. Atoms - [mass etc] are the emerged product of other chaotic 'sub-atomic particles/energies' and are themselves dynamic standing waves. They produce a time wave in relation to the observer but this time and its time-scales are entirely local, and somewhat arbitrarily imposed. Mass will also produce harmonic images or dimensions of itself, not necessarily as discernible to the observer as the passage of time. e.g. resonant material impressions of dense matter perhaps enlivened by emergent energies and matter – ideologies that we may designate as Mythic or Theological e.g. Heavens, Planes, Spheres, Continuum, Nirvana etc Time is a wave propagated through the relativity of local mass - and a 'time-scale' may be 'imposed' in relation to some standard of lowest common denominator - LCD - of mass - common to all observed systems. We choose the photon - but make the mistake in assuming that the photon is a Universally Constant LCD for mass and time.

Much in the same way that water is the LCD and standard for life on Earth - we know that it does not flow about from place to place at the same rate. i.e. The cycling of water on this planet is not 'universally constant' or consistent due to gradients, climate, weather, metabolism, rate of uptake etc and by the same token, the cycling of photons through the Cosmos cannot be constant.

For the Free energy device of Bruce DePalma -

Two parallel plates of equal size and mass, one spinning clockwise and the other counter-clockwise with a massive potential difference in Volts between them would disrupt the field and wave relativity in the gap between the plates. There, the integrity of the structure and mechanics of; gravity, time and electromagnetic wave relativity would be compromised. The matter and space-time fabric between the two plates is rather like a physical dam, behind which is the subatomic reservoir of the aether.

Richard Walters for The People Magazine / Energy/New Ideas section:

Subtitle: A promising new alternative energy source, neglected in the U.S., advances in the Far East. 'Physicist Bruce DePalma has a 100 kilowatt generator, which he invented, sitting in his garage. It could power his whole house, but if he turns it on,

the government may confiscate it. Harvard educated DePalma, who taught physics at the Massachusetts Institute of Technology for 15 years, claims that his electrical generator can provide cheap, inexhaustible, self-sustaining and non polluting source of energy, using principles that flout conventional physics and are still not fully understood. His N machine, as it is called, is said to release the "free energy" latent in the space all around us.

Dr. Robert Kincheloe, professor emeritus of electrical engineering at Stanford University, independently tested the Sunburst machine. In his 1986 report (presented to the Society for Scientific Exploration, San Francisco, 6/21/86), Kincheloe noted that the drag of the rotating magnetised gyroscope is only 13 to 20 percent of a conventional generator operating at an ideal 100 percent efficiency; the DePalma N machine could produce electricity at around 500 percent efficiency. In Kincheloe's cautious summary: "DePalma may have been right in that there is indeed a situation here whereby energy is being obtained from a previously unknown and unexplained source."

The problems inherent in a discontinuity of time and local matter may result in both 'anti-gravity and anti-mass' effects and also 'anti-time' effects. As in the 'two atomic clocks' experiment, a lessening of gravity and time may occur but this time at a more significant scale of difference between apparatus and relatively massive body of gravity. e.g. planet. Each moment in time in our 3D of space is unique and the past can never be recreated - as the relative factors that comprise 'one moment' are infinitesimally complex. Therefore the notion of going back in time and creating extreme problems is probably not a physical prospect, as we understand it, as all of our moments were continually and uniquely replenished by emergence from transparent matter donation. E.g. Time travel is essentially faster than local mass travel. We may have certain parameters concerning an area of the past which we could visit, but without specific knowledge of those massively complex and local and unique processes of emergence it would be extremely difficult to overcome the inertia written into that time space system in a way which would again influence its overall and global evolution.

Forward time travel, may not be precise enough to be technologically reliable – as there would need to be an appreciation of the local fields and forces within the materials and physics that we inhabit that could predict persistence in; form and physical structure, molecular ratios in bodies of atomic aggregates and the relative rates of; entropy, emergence and recombination of atomic forces relative to our space-time.

It is though possible to predict the numbers of exotic of the Periodic table isotopes that may emerge using the logical system of TRE and indeed from Plichta.

Predicting matter and energy parameters that may yet generally occur using such computation and data available we may then create a temporal standing wave inside an apparatus that structurally matched a predicted future of local space-time. We may gather and collect or generate opaque matter to project into the 'local future'; i.e. congruent zones of transparent matter, which would seed and mould the evolution of the specifics within our future worlds. These 'strange attractors' of emerging opaque matter that currently seed our reality may be sufficient to buffer any device then subsequently introduced into this non-static envelope against any

radical shift in the local aggregates of opaque and transparent matter that would have influenced their emergence gradient. It may be that relatively short jumps forward are possible in some way in the expectation that those kinds of opaque and transparent weather clouds we send are more static and durable in the winds of time than the nature of the denser matter that we inhabit. There may however be drastic demands on structural integrity even upon opaque matter at any random time. In principle, therefore, given that we could empirically obtain opaque matter such that it may create a more stable context which can facilitate the projection of a more materially and temporally anchored, we may send a complex sensory device from our own time zone possessing more operable properties that could return a result whilst it was being substantiated by the opaque matter envelope.

The keys to our future are the simple constructs that have given our life its most immediate meaning. There is a University education within a country walk or city park, had we but the self confidence and self-respect to acquire it. Tripartite Essentialism is based upon the field theory notion that there is a continuous relation between one system and another through a common medium. i.e. A to B through some common C. To add to this idea is the notion of Emergence, where one less sophisticated system by its more massive scales of chaos (aether) and in a higher energy state feeds into and - [emerges] another more sophisticated system in our time space.

1.2.3 A New Cosmology.

To analogize using the cycles observed in the material creation and recreation of stars. First born or primary stars, are hot and e.g. blue, ultra-blue or indeed may not be visible at all in some ways although they may be a substantial star relative to some other part of another bubble universe in some other foam. New stars have a short life and eventually go supernova and explode, releasing the products of their cycle of physical synthesis as relatively more processed debris. This because they are newly emerged matter and have material that is comprised of unstable and chaotic processes.

At the start of the lifecycle of a star where aggregates of debris are impelled and constrained by gravity to coalesce, an emergence/fusion reaction kicks in if there is a sufficiently steep emergence gradient from transparent matter, to opaque matter at the locality of the dense matter mass. These highly temporal and chaotic hot blue star fields are the product of emergent intrusion from a physically transparent adjacent bubble in the foam and may incessantly froth and explode and remain in a chaotic material state. However, they may eventually emerge slightly cooler green stars by a process of fusion and by merging such assets as green star materials together. The processes of gravity and opaque matter gradients and local material relativity as eventually become supplied for example may supply a bit of local temporal debris that could serve as a seed around which to grow new emergence products. Under these conditions of fusion and emergence, cluster galaxies may form, fed into by a central fusion reaction or 'white hole'. The spherical galaxy may continue creating and recreating in a variable way, but that would not automatically preclude the cessation of the conditions of emergence and donation from the other bubble in the foam that was supplying it. The status of supply of structures may drastically change in these unstable conditions. The emergence gradient from the

adjacent bubble having dropped off, core stars in this galaxy may re-enter into adjacent chaos, whilst other stars on the periphery of the sphere may drift off into this cosmos being excluded from the new equilibrium between emergence and entropy around the changing white hole. In other aspects of our own universe bubble, energy may be passing outwith our universe down a variable gradient into another bubble of variably lesser energy than our own. [a black hole or an extended tear or worn patch of dissipation in our cosmos] Dissipating energy will create a tear or rift in local dense and opaque matter. If a galaxy is in this region the densest area of the galaxy may start to donate matter to the other adjacent lower energy cosmic bubble down a concentration gradient. This stream of local matter will generate large amounts of mass and energy and will extract this from local stars and galaxies. This toll material from the latter may also coalesce under great pressure being sometimes being unable to exit simultaneously due to the variable gradient conditions imposed by chaos. Under these circumstances where matter is queuing under pressure to exit this cosmic bubble - such matter may react creating explosions from the source of the black hole. E.g. the ejection of tertiary matter

Not necessarily at the centre of a galaxy and not necessarily relatively black in terms of a gravity well but holes may be small widely spread homogenous patches of relatively smaller brown pores comprised of leaks in the matter and opaque matter aether of this bubble such that the fabric of the bubble is more resilient to the local demands in this locality. Rather like the appearance of a more resistant but porous brown membrane spread over a galactic cluster than a single black gravity well at the heart of a galaxy. There may also be instances of relatively brown holes at the heart of a galaxy. This state of affairs may come upon a relatively hot galaxy or it may come across a relatively cold galaxy.

Eventually, such compacted material of inappropriate relativity that was kept there by bubble exit pressures – basically 'suction' - and now exchanging energy across very steep differentials between new and unstable aggregates and under the new conditions of re-emergence, and reconstruction from its original sources explodes in a state of combustion releasing the stellar material.

If conditions for black hole formation occur in a formerly fusion fed hot galaxy, there may be green or yellow stars and star components produced that tend to be fusionable which would further recombine. This explosion may also produce enough material for yellow or green stars that operate by combustion and fission. There may be however green or yellow stars that are wholly endowed with processes of fusion. If conditions for black hole formation occur in a formerly fission fed cooler galaxy, then its subsequent explosion could also produce both types of green and yellow stars that use both fission and fusion. End products of fission etc are red, brown and black dwarves that eventually recreate the same physical processes and conditions operating within a black hole that lead to a further explosion and the creation of more sophisticated atomic (tertiary) stardust.

The various transitional states of a red dwarf to black suggest by analogy that a black hole entropy gradient could be observed in some forms as the ultimate phase in their cycle. It may be observed from; the descriptions of black holes, white holes and emergence gradients between cosmic states of transparent, opaque and dense matter, and, between aggregates of our own dense matter atoms by using Fajan's Rules, that the processes in the macrocosm look identical to those in the microcosm except for the labelling notions that the psychology of magnitude attaches to them.

The macrocosm by analogy is a very slowly moving weather system, galaxies being the eyes of the energy storm of chaotic emergence.

The subsequent; migration of electrons, protons and neutrons, and the migration of and recycling of fissionable and fusionable material between black and white holes of relative opposite polarity and behaviour indicate that the simple transaction model of A to B through some common C, i.e. from big scale to small scale across a variable and changing common C is the simple cornerstone principle of the Universe. In keeping with the idea that from some other context D some very large pocket of a different and even greater magnitude of vast transparency or opaqueness could deliver a very large newly formed pocket as a small bubble directly adjacent to our doorstep. As suggested in the atomic scale model, protons, electrons and even neutrons would migrate to fill it, so too would our galaxies by analogy. This process may give us a clue as to the eternal creativity of this Multiverse that we all stay in to make new, baby Universes. Therein lies the possibility of eternal recombination and strange new introductions to strange new properties, for much of the material could come from bubbles adjacent that possessed incredibly different material behaviour than the properties of matter currently within our own Universe. The key to all of this analogy and modelling comes from the simple deductions about material properties made by Fajan called Fajan's Rules. i.e. big to small through common medium.

In a book called Physical Chemistry by GI SMITH. A very large 15+ volume set on Physical Chemistry from a technical University bookset however, only produced Soddy-Fajan in the index. It was very clear that we were not talking about a principle of transfer between high-energy atoms to low energy atoms !

Rutherford and Soddy in 1902 and 1903, produced the theory of 'radioactivity'. With Einstein's 'special theory of relativity' in 1905, Planck's 'Quantum Theory' in 1900, then again in 1920, Bohr's atomic theory in 1913, by the time 1927 came around, Heisenberg couldn't find out what particle anybody was referring to because particles consistently refused to be found. 'The principle of indeterminacy.' 1927. With Olbers c.1920's claiming that something was holding them all up somewhere or the sky would be white at night despite Michelson-Morley's 1887 dismissal of the theory of aether, Einstein's 1905 pronouncement that light ossified at a constant called 'c' was still upheld in the 1930's and beyond. It was left to Schwarz and Green in 1984 to lasso Galileo's 1610 'sidereal messenger' utilizing the methods and lexicon of Sir Isaac Newton's 'Opticks' written in 1704 with their theory of 'Super strings'.

Green and Schwartz's 10 and 26 dimensional string theory, however, even today, continues to be inconsistent in its own terms as a sufficient and logical explanation of 'everything'. A veritable particle zoo of arbitrary; size, naming, properties, behaviour of classes, ... 'even conventional elementary particle physics has problems when it comes to mass. The basic quantum mechanical rules give no reason as to why mass should be fixed at all. There seems to be no rule why the mass of the electron, for example, should not have a whole range of values. Moreover the various [super strings] symmetry schemes that were created over the last two decades work best when the particle masses are zero. Peat DF, 'Super strings', p.230.] Symmetry and labelling ensued that began even in its nomenclature to mimic the mathematics and behaviour and torque of turbulence and chaos systems. Linear mathematical

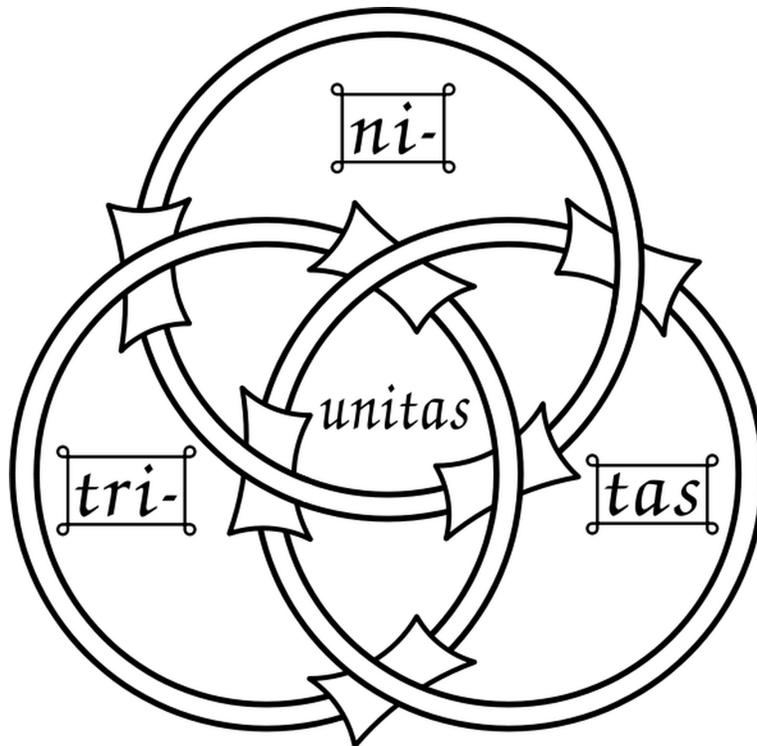
topology began to be twisted and pulled into 'twister networks' and 'spin networks' [Peat DF, 'Super strings' pub.1988, Cardinal, ISBN 0-7474-0583-2, P.231-3].

By creating linear algebraic models of particle behaviour in this turbulence, the mathematics of particle relativity collapsed in places called 'gauge fields' between the different particles. There, the 'collapsing wave function' could only be solved in mathematical topology by adding a small appendage onto the ends of the particle model like a 'weather vane'. E.g. Penrose. p.270. 'This measurement problem has been around for 50 years now ..' p.271.

In physics, threeness has been found in action at the very heart of physics and matter.

In 1970, Vitaly Efimov was manipulating the equations of quantum mechanics in an attempt to calculate the behavior of sets of three particles, such as the protons and neutrons that populate atomic nuclei, when he discovered a law that pertained not only to nuclear ingredients but also, under the right conditions, to any trio of particles in nature.

While most forces act between pairs, such as the north and south poles of a magnet or a planet and its sun, Efimov identified an effect that requires three components to spring into action. Together, the components form a state of matter similar to Borromean rings, an ancient symbol of three interconnected circles in which no two are directly linked.



Although the typical picture of the Borromean rings (above picture) may lead one to think the link can be formed from geometrically ideal circles, they cannot be. Freedman and Skora (1987) prove that a certain class of links, including the Borromean links, cannot be exactly circular.

In terms of the chaos theory and TRE, Borromean rings in nature fit in very well with a universal non-linearity paradigm.

The so-called Efimov “trimer” could consist of a trio of protons, a triatomic molecule or any other set of three particles, as long as their properties were tuned to the right values. And in a surprising flourish, this hypothetical state of matter exhibited an unheard-of feature: the ability to range in size from practically infinitesimal to infinite.

Efimov trimers are states of matter that theoretically come in an infinite range of sizes. Experimentalists recently observed consecutive trimers, verifying the strange theory.

The so-called triple alpha process responsible for carbon-based life – and made famous through Fred Hoyle’s prediction of a necessary resonance on anthropic grounds – appears to be a consequence of Efimov states.

The triple-alpha process is a set of nuclear fusion reactions by which three helium-4 nuclei are transformed into carbon. Helium accumulates in the core of stars as a result of the proton–proton chain reaction and the carbon–nitrogen–oxygen cycle.

<https://www.quantamagazine.org/20140527-physicists-prove-surprising-rule-of-threes/> Natalie Wolchover May 27, 2014

It remains to be seen, however, in their study of the torus and twistor mathematical topographical models, from e.g. 19th century mathematical topological algebra of Grassmann HG and Clifford WK, if the super strings mathematicians remember the basic paradox of the torus presented by Schiffler. Schiffler's Horns paradox explains that a joined torus is impossible and that in fact, all is non-linear chaos. Green and Schwarz and Gross's super strings are built out of 'compactified' space that allegedly [Peat p.289] compresses 10 and more torus 'structures' together. Also to make the theory more workable, the edges of torus particles somehow need to connect. In the mathematics of topological chaos, however, a structure such as a torus doesn't logically and formally exist. With even Green and Schwarz now suggesting that some of these empirical dimensions are 'not really dimensions at all', [Peat, p.320] the underlying assumptions and mathematical models used to constrain chaotic empiricism into various regular torus layers are being torn apart. Super strings, therefore is a dark knotted unfalsifiable cul de sac of arbitrary labels and fragmented mathematical models. Chaos is evident everywhere in particle energies, even from the linear mathematical investigations, where a particle model performed better because it had mathematical appendages.

These ideas are best seen illustrated in another diagrammatic representation of Schiffler's Horns that uses not a torus to illustrate fractal reality but a representation of a triangle with appendages that are fractal growths upon it called a Köch Curve. The side of the triangle is only a point of view from another point of chaos somewhere in its fractals in the same way that the incomplete torus of Schiffler is only a point or curve from within the fractal relativities of the unjoined horns. Schiffler's Horns is a direct refutation of the super strings torus model. Within the empirically measured energies of the Cosmos there are many kinds of models and data that would substantiate the ontology of chaos theory. This would include a universal and 'natural' objectivism and field theory of emergence based on natural turbulence. With energy emerging and forcing its way into our 'dense matter', it was left to the most ancient and rejected and presumably dejected school of scientific ghosts to rattle the chains behind the brick walls of those lost academic cupboards of the 19th Century. Hooper WG, 'Aether and Gravitation', pub.1903, Chapman and Hall, London, writes on page 63, '... the atomicity of the aether has already been suggested by such scientists as Clerk Maxwell, Lord Kelvin, Dr. Larmour, and Professors Lodge and J.J Thompson. Clerk Maxwell, in an article on 'Action at a Distance', in collected works by Niven, referring to the atomicity of the aether writes: 'its minute parts may have rotatory as well as vibratory motions, and the axes of rotation may form those lines of magnetic force which extend in unbroken continuity into regions which no eye has seen'. 'Lord Kelvin, in several articles on 'Vortex Motion' in the Philosophical Magazines of recent years (c.1903), has mathematically dealt with the aether from the atomic standpoint, and has endeavoured to prove that the aether medium is composed of vortex rings, but he was unable to come to any mathematical conclusion.

Of the field theory that ties the aether together with the compression of continual emergence, the 1903 data, as available to Hooper enabled enough perspective to

deduce for physical properties what would later in the coming 100 years be seen to apply to; Biology, Psychology, Chemistry, Cosmology and Time. etc.

'The law of inverse squares which governs not only the law of gravitation attraction, but also electricity and light, is equally applicable to the phenomena of heat, so that the intensity of heat varies inversely as the square of the distance. Thus, if we double the distance of any body from the source of the heat, the amount of heat which such a body receives at the increased distance is one-quarter of the heat compared with its original position. If the distance were trebled, then the intensity of the heat would be reduced to one-ninth; while if the distance were four times as great, the intensity of the heat would only be one-sixteenth of what it would receive in its first position.' [Hooper WG, 1903]

Across this chaotic medium, the aether, spinning, rotating and vibrating, the waves of light and electricity propagate. Attracted and deflected by larger gravitational masses. Clerk Maxwell, in his paper on 'Action at a Distance' (collected works, by Niven) writes, ' .. in its infinite continuity .. it extends unbroken from star to star, and when a molecule of hydrogen vibrates in the Dog Star, the medium receives the impulses of those vibrations, and transmits them to distant worlds.' [Hooper WG, 1903, p.59.] 'Lord Kelvin in giving an address to the British Association, 1901, on 'Clustering of Gravitational Matter in any part of the Universe.' said: 'we are convinced with our President (Professor Rucker) that Aether is matter. Aether we relegate to a distinct species of matter which has inertia, rigidity, elasticity, compressibility, but not heaviness.' One hundred years later, in the third millennium, Professor Higgs, the Scientific Community and the 'Massless Vector Boson' that may solve the mathematical chaos of super strings and the quest for interplanetary resources with a cute picture of an image artefact called 'the god particle' , are still beyond help. Faraday in [Hooper, 1903] writes, (Exp. Res., vol. ii.); 'The view now stated of the composition of matter would seem to involve the conclusion that matter fills all of space, or at least all space to which Gravitation extends, including the sun and its system, for Gravitation is a property of matter dependable on a certain force, and it is this force which constitutes matter. Aether must also be matter.' Hooper in 1903, an objectivist to the end states 'for example, the laws which govern the light and heat of the sun are the same which govern the light and heat of a candle or a glow-worm; and the laws which govern a planet or world are the same as those which govern an atom. Thus a planet or world, which is simply an agglomeration of atoms, may reveal to us in its motions and laws, what are the motions and laws which govern the atomic world.' The laws of attraction and repulsion as stated by Newton and the laws of planetary attraction, conservation of momentum, for every action there is an equal and opposite reaction etc, belong to an era bereft of massive computational analysis. Although numerous empirical regimes from the famous Lord Kelvin and Boyle, whose gas laws and studies of turbulence would have been major scientific advances had they a version of Windows 95 - the main theories on aether, although very feasible would be doomed without a driving and causal engine - the engine of emergence.

Factors noted by [Hooper, 1903] as Centripetal and Centrifugal forces without a chaos-driven emergence model to drive the 'antigravity' or out-throw of the centrifugal forces being measured would fail in 'gravitational collapse'. 'Here, then, is presented to us a kind of order of celestial phenomena for whose well-being and

effectual working the centripetal force or the attraction of gravitation cannot possibly count. In their case another force is demanded which shall be the exact complement and counterpart of the centripetal force. There needs therefore a force, not an imagined one ... a force existing in each world just like the attraction of gravitation, only the reverse of gravitation, a repellent, repulsive force, acting in the reverse mode and way, to universal attraction. This force must be governed by the same rules and laws that govern centripetal force if it is to work in harmony with the same.' [Hooper, 1903, p.31.]

Beyond, Kelvin's ideas, though was the ['Spherical Vortex Atom Phil. Trans, 1894] of Professor Hill in Hooper, p.62 ... ' in the conception there put forward, and mathematically worked out, Professor Hill showed that his spherical vortex atom possessed similar properties and characteristics to the vortex rings of Kelvin." ... that atom would; rotate, be a magnet, possess elasticity, compressibility, inertia, ... and ... a certain amount of mass.'

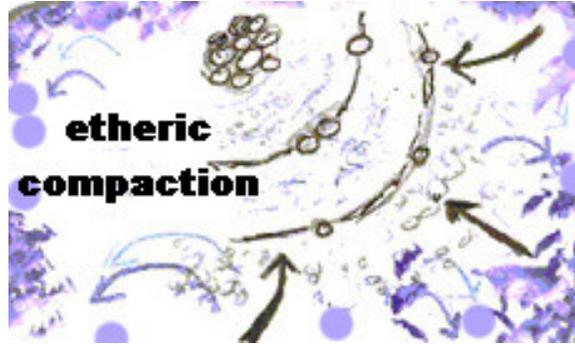
The background to these late 19th century theories, however, fell apart without the tools of massive computations in turbulence and complexity needed to precisely measure the material and its behaviour. Newton's 'unifying theory of gravity' did not hold the unity of the universe together. Hooper predicts emergence as a counterbalance to gravity, but believes that stars such as the sun were the source on the basis of the results published by Michelson and Morley in 1887 CE in Phil. Mag. December 1887.

Hooper on numerous occasions predicts true, but unfortunately, he went with Lord Kelvin's 'smoke rings' and 'linkages' instead of Hill's 'sphere'. Without the insight of 'compression' from emergence and accountability for particle recombination and formation, he did fail to produce unity, but, to date, he has been the most advanced particle physicist that the 20th Century has ever seen. Hennessey's Harmonic Continuum Theory of 2004, however, first collated in 1991 takes a different approach to scaling and internal processes within aether. Hooper places emphasis on an analogy of a Kelvin vortex ring atom that is surrounded by an elliptical cloud of aether, as he had allegedly seen Michelson-Morley publish about Earth's aether envelope in 1887.

His unifying force that formed the inside of the vortex was Newton's gravity, which he called a centripetal force. If I were using his terminology to explain my theory to him, I would have stated the exact opposite of his findings.

It should have been the chaos force that caused the particles His 'centrifugal' force was the work of chaos on the atom at time 2 that threw energy out into turbulence. It is emergence that drives the atomic compaction that we discern as 'gravity' and that would make Hooper wrong about the way that he interpreted atomic gravity and also about the arrangement of his ideas about physical extremes as perceived by Newton. e.g. spectra.

This pressure compresses the aether into bigger particles and pockets that resonate their aetheric substrate at time1 with the activity of transverse waves. This causes electron shells or 'Quantum numbers'.



Rather than a fixed number of quantum shells, however, there are relatively variable empirical results for the distances between the energy states of these internal waves. This and other motions and spins and relative displacements have caused the paradox of non-locality observed by Heisenberg. [1927]. and also by recent physicists who, using more precise technology were able to manufacture, destroy and enable whole series of arbitrary particles in a 'particle zoo'. These particles e.g. charm Quarks, Hadrons, Mesons, Gluons etc became every difficult to classify or utilize.

The chosen classification system for the smaller scale atomic components was made counterproductive by the RGB colour scheme, which is non-intuitive. The Red Green Blue or RGB colour scheme used to classify 'quarks' does not easily and accurately predict symmetry within complementary colours and was therefore difficult to analogize with before attempting to interpret the quark results.

The other difficulty with Quantum Electrodynamics was that it was not possible to contain and restrict particle sizes within the theory model. The scaling issue would have required some 'glue' or 'charm' to keep it all stuck together. This has been practiced in QED and QCD [Quantum Chromo dynamics] using the laws of Boolean Algebra which as you may see from the Mathematical discourse in this work do not all add up.

The law of adding things together A and B to get B and A produces a set containing A and B for the purposes of calling A and B a particle class. i.e. commutation e.g. or Abelian sets. Non-Abelian grouping in gauge theories will produce no rational standard of relativity whatsoever unless either; the laws of association or distribution are applied. No other Boolean Rules provide any rational alternative. i.e. Sum, Product, Absorption. Also, although Planck's Constant is directly related to frequency of emissions and even though it is also chained to the Einsteinian light speed it is insufficient in accounting for all the basic factors involved in the energy exchange. '.. unlike the halfpenny, however, the value of the quantum is not fixed, but is related to the frequency of radiation which, by its emission or absorption, causes the change in energy..'

[Brown GI, 'Introduction to Physical Chemistry SI Edition', pub. Longmans 1975, ISBN 0-582-32121-X, page 105.] Planck [1900] in not measuring the rates of emergence of newly introduced created material had omitted a second construct out of his equation. Hooper of 1903, had, in fact, a more sophisticated grasp of the problems within physics that were to continue for the next 100 years. The relative turbulences observed within particle interaction e.g. '*Jet particles*'

'.. a system of particles produced during particle reactions at high energies. The jets are interpreted as fragments of elementary objects such as quarks and gluons.'
Fritzsich H, 'Quarks, the stuff of matter', Pelican 1982, ISBN 0-14-022470-X.

The various theories of the weak and strong electromagnetic interactions and their 'invariant symmetry transformations whose effects vary from point to point in space time' [Fritzsich, 1982 p.217.] are called Gauge Theories.

The field theory as it operates and diminishes by power law between quarks has been noted in terms of degrees of *'asymptotic freedom.'*

In physics, asymptotic freedom is a property of some gauge theories that causes bonds between particles to become asymptotically weaker as energy increases and distance decreases. I.e. an inverse power law

Hooper in 1903 p.221. had already noted the value of Kepler's Third law in this respect using a holistic planetary analogy. *'.. Whewell on this matter in his Inductive Sciences states that 'Kepler assumed that a certain force or virtue resided in the sun by which all bodies within his influence were carried round him. He illustrated the nature of the force in various ways, comparing it to light, and to the magnetic power that it resembles in the circumstances of operating at a distance, and also of exercising a feebler influence as the distance increases.'*

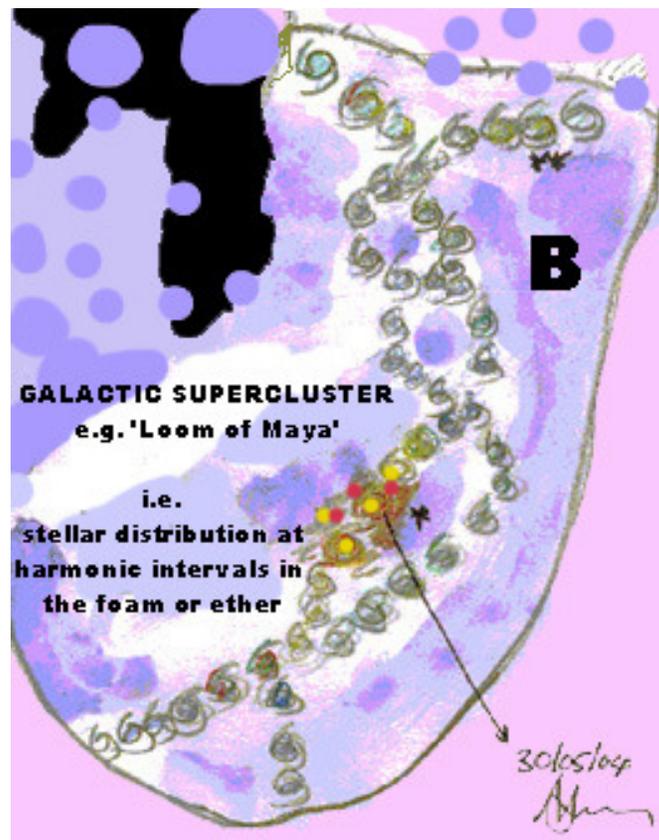
Another image to which he referred suggested a much more conceivable kind of mechanical action by which the celestial motions might be produced, viz, a current of fluid matter circulating round the sun, and carrying the planets with it like a boat in a stream.'

Whewell adds: *'A vortex fluid constantly whirling round the sun, kept in this whirling motion by the sun itself, and carrying the planets round the sun by its revolution, as a whirlpool carries straws, could be readily understood, and though it appears to have been held by Kepler that this current and Vortex were immaterial, he ascribes to it the power of overcoming the inertia of bodies, and of putting them and keeping them in motion,'* [Hooper, 1902, p.221-222.]

Kepler's Third Law as stated by Hooper p.37 and 33 'gives the relation between the (orbit, or) periodic time of a planet and its distance from its star as: the squares of the periodic times of planets are proportional to the cubes of their mean distance. i.e. p.38 .. if we have the periodic time (orbit) of any two planets, and the mean distance of either, we can find out the mean distance of the other by simple proportion.' In the bubble chambers of the creative particle physicists, however, the Jet and Charm particles gradually eroding the tenacity of quantum numbering were producing an assortment of 'Flavour' particles locked into 'infrared slavery' with no particular reason to be going or staying.

In the absence of the local and temporal emergence gradient figures for that year as some sort of constant to put into Planck's equation - an additional burden on the already [a priori] aetherically burdened speed of light that would additionally impact on existing matter - they were going to need 'Glueballs' [Fritzsich H] and 'Spaceballs' [Brooks M] to keep it hanging together.

In Cosmology, there would also be cosmic bleeding to account for where large tracts of our cosmic bubble would leech through an opaque membrane by osmosis - as opposed to the singularity of transfer created by a black hole.



Andrew Pickering in his 'Constructing Quarks - a sociological history of particle physics', pub 1986. Edinburgh University Press. ISBN 0-85224-535-1 page 413 refers .. *'Twentieth-century science has a grand and impressive story to tell. Anyone framing a view of the world has to take account of what it has to say ... it is a non-trivial fact about the world that we can understand it and that mathematics provides the perfect language for physical science: that, in a word, science is possible at all. (Polkinghorne (1983))*

Such assertions about science are commonplace in our culture. In many circles they are taken to be incontestable. But the history of HEP (high-energy physics) suggests that they are mistaken. It is unproblematic that scientists produce accounts of the world that they find comprehensible: given their cultural resources, only singular incompetence could have prevented members of the HEP community producing an understandable version of reality at any point in their history. And, given their extensive training in sophisticated mathematical techniques, the preponderance of mathematics in particle physicists' accounts of reality is no more hard to explain than the fondness of ethnic groups for their native language.'

Instead of Rutherford, Soddy and Planck c.1900 - 1903 with billiard balls held together by c.1980's 'gluons' whilst radiating quantum shells - there is instead, from TRE, a deluge of energy compressing into various packets of various sizes between which and within which are gradients of varying velocities and impedances. In the 1970's this idea was called 'Constrained Undulating Motion' by the research physicist Frank Ferguson in his alleged work on projects at Lockheed Skunkworks.

The frequency of transaction across the density and resistance within each packet is relatively driven in time with the forces of emergence and its field strength in any temporal locality in the cosmos.

At high frequency and low resistance gradients there are many atomic shells.

The Structural and scalar persistence and ongoing integrity of atomic localities in Light Matter are due to resonance between; emergence and frequency driven, pattern-based structural interdependencies.

These aggregates of simples and complexes are continually fed by the compaction energies of emergence. Highly facilitative, rigorous and highly structural postponements amongst driven interstitial elements e.g. in diminishing order of scale; neutrons, protons and electrons, incorporate self-sufficiency and relative immunity to emergent driving. E.g. forming and ultimately normalising to the 81 stable elements described by Plichta [1997].

This would eventually develop into a 'dance of tripartite symmetry' illustrated by Peter Plichta in his 'Prime Number Cross' for elements, [Plichta, 1997] that would then attract a greater scale of normalising focus of these initial components, down an increasingly steeper gradient at time¹.

If the emergence flow continues to keep the aether pockets supplied in excess, therefore, it will be possible for inanimate Light matter to grow. E.g. radioactive decay could cause some of the smaller elements to grow.

At this scale of atomic complexity, two symmetrically entwined systems are in homeostasis i.e. the emergence of the aether and the entropy of Light Matter that are;

compacted, fed by steady and dependable gradient, that are interacting and mutually interfering with their integrities - may in this turbulence, be able to impart a notion of scale and symmetry to a third amount of supplied material – a pin-off vortice, thus creating a new and similarly-scaled tripartite particle performing to local, ultimately normalised ratios of transference.

The energies of matter interact through the physical transactions of constructive and destructive interference. The propagation of the transverse waves in variably dense and turbulent media by harmonic and vibratory motion is driven by emergence and dissipated by entropy.

'The rules of Quantum Physics [QED] do not regulate particle sizes in Quantum Shells' [Peat DH].

'In Newland's Law of Octaves in 1864, he arranged all the elements he knew in ascending order of relative atomic mass and assigned to the elements a series of ordinal numbers which he called atomic numbers. He then noticed that elements with similar chemical properties had atomic numbers that differed by seven or some multiple of seven. In other words, Newland discovered that the chemical properties of elements were often to be similar for every eighth or sixteenth element, like the notes in octaves of music.'

Brown GI, 'Introduction to Physical Chemistry, SI Edition pub. 1972, ISBN 0-582-32131- X

The process of emergence, according to TRE, drives the facilitative structure of particles by compressing and continually feeding the shells across and through variously dense but persistent, pockets of aether across an inconsistent but relative transaction gradient. This will drive the formation and concretion and cohesion of the particles whilst their elasticity is being continually challenged by constant entropic change.

In these circumstances, particle opportunities are; persistent, temporary and generic and non-generic. Resonance Hybrids of these generically similar atomic states interact 'electronically' in variously indescribable ways.

e.g.1 *'No single structural formula which can be written for benzene, for example, accounts for all the known properties of benzene, and this is so for many other compounds.'* [Brown, p.185], and, 'Ingold introduced the description of these chaotic interactions as mesomeric states or mesomerism i.e. 'between the parts'. In this chaos, atomic structure itself will shift about and elastically self-regulate, creating different atomic structures e.g. tautomerism in classical chemistry, or, also driven to mutate, grow or decay into some other element by emergence, density and turbulence gradients within the aether.

According to Böhr [1904], Rutherford's spinning electrons didn't fly away expelled by centrifugal activity - they couldn't escape because they were locked into stationary stasis.

To quote Plichta, Plichta P, pub. Element 1997 'God's Secret Formula - Deciphering the riddle of the universe and the prime number code' ISBN 1-86204-014-1, page 194,

'.. in reality, so many atoms collide with each other simultaneously in a gas-filled space that nobody would ever get the idea that the kinetics of colliding gas atoms in principle only involve dual collisions and thus yes-no decisions. The space they occupy thus behaves mathematically like the grid space that can be described by Pascal's Triangle.'

1.2.4 Chaos Theory and the Aether

These chaotic swarms of small, simple, atomic things can be modelled.

'The common architecture of 'swarm' refers to a large number of simple agents interacting, whether they are a swarm of bees, an ant colony, a flock of birds, or cars in city traffic. Agents - with their own internal data and rules - act by passing messages back and forth to each other. The system also provides a field object to associate the agents with co-ordinates in space. The agents can modify the environment and in turn their behaviour is dictated by the state of the environment,

providing a feedback loop. 'We are attempting to capture the architecture in a general purpose way,' says Langton. 'Then people modelling insect behaviour, the economy, the behaviour of molecules getting caught up in complex dynamics, or the evolution of populations can go to the same simulator and not worry about a lot of very subtle computer science and engineering issues.' Langton in [Santa Fe Institute Bulletin, Fall, 1993, vol8, no.2 page 13-14.]

The end-based 'telic' principle of the incremental complexity and diversity of life and the predation and grazing between scales of sophistication - his 'zoological perspective' does ring true though. Rupert Sheldrake in his 'a new science of life - the hypothesis of formative causation' pub.1985, Paladin, ISBN 0-586-08583-1 page.95 ..' Time after time when atoms come into existence electrons fill the same orbitals around the nuclei; atoms repeatedly combine to give the same molecular forms; again and again molecules crystallize into the same spatial patterns; seeds of a given species give rise year after year to plants of the same appearance; generation after generation, spiders spin the same types of web. Forms come into being repeatedly, and each time each form is more or less the same. On this fact depends our ability to recognize, identify and name things. This constancy and repetition would present no problem if all forms were uniquely determined by changeless physical laws or principles.' [Sheldrake, p.95]

Sheldrake does not believe, however, that these laws are testable - as they would have to account for the prior and automatic evolution of DNA - hence his morphogenetic field hypothesis of formative causation. [TRE] and Chaos theory [Kauffman] explains that DNA automatically emerges at the end of a telic emergence chain that compresses the aether into atoms, that then drives them into complex self-regulating arrangements of transitional polymers, then further compresses them, if time will allow, into self replicating autonomous processes that are capable of crossing the energy barriers presented by scale to emerge into and exploit new material circumstances. Kauffman S in Levy S 'Artificial Life', pub. Penguin 1992, ISBN 014-023105-6, P.136 demonstrates the emergence of selfregulating long chain polymers from such a primordial soup. Kauffman S, 'Origins of order: self-organization and selection in evolution.', Oxford: Oxford University Press, 1992) or adapted in 'Antichaos and adaptation', Scientific American, August 1991, pp. 78-85. are other presentations of Kauffman's discoveries. In [TRE] relativity, the attributes of scaling presented by physical chemistry would present a created sea of emergent atoms [macro], being driven and compacted into more complex molecular activity around the transitional, hybrid and interstitial values within the periodic table of chemistry. The diversity of the carbon ring structures e.g. Benzene as previously stated in [Brown GI, 1972] are not yet fully enumerated. By analogy with biological feeding. Two systems being over-fed and over-substantiated at time1 interacting and exchanging mutual interference, introduced to a new amount of symmetrical aggregate at time2 will be able to influence and drive the symmetrical construction of a substantial third copy at time3 by sympathetic resonance if conditions amongst the atomic persist. Upscaling to carbon-based life forms of massively complex aggregates and massively complex postponements of discharge, because of massively complex chemical topographies - there would be sufficient postponement of entropy for a more perfect reproductive symmetry to develop [e.g. chaos driven foetus] in this model. Information Exchange is analagous to energy exchange in atoms. It may be said that in the interests of

efficiency that intelligence appears to have a high opinion of itself - as Langton's Swarm Model at Santa Fe and the many other simulations within Complexity Studies would suggest.

1.2.5 Jupiter, our binary star – a TRE predictive model.

Using the Tesla theory of grand unity called the theory of environmental energy, I will outline the mechanism by which Jupiter could become a nova. With our current understanding of Cosmology and physics, the following theory could be termed pseudo science, because it is dependent on the idea that somehow there are partial discharges of voltage/energies between semi-porous structures around the planetary core. And that these semi-porous states are in some ways analogous to non-porous capacitors because there is always a high pressure of particle emergence somehow filling in the gaps enough for there to be a resistance to the discharges.

However my theory performs what science methodologist and philosopher of science Karl Popper calls in his 1962 publication 'Conjectures and Refutations' – a bold conjectural leap.

All that is needed for it to suffice as a scientific model is for it to predict and if necessary be falsified and discarded if it fails to meet its own criteria for a theory. My prediction makes several assumptions already made and practiced by Tesla in his Theory of Environmental Energy 1910 in that energy pours into the cosmos from the aether, supplying new particles and mutating others into newer and bigger atoms and particles. Whilst its known and approved opposite force entropy degrades and creates newer and smaller atoms and particles. The supply of new energy into the universe from the chaos of the subatomic aether is called the law of emergence.

Emergence and entropy act synergistically to create and recreate new end based systems. Contrary to the second law of thermodynamics that predicts that matter continually and forever breaks down into minute and homogenous pieces, emergence is the other side of the coin – it drives structural re-assembly. Kauffman has demonstrated the recombinative power of emergence in his 'self regulating auto catalytic polymer model' at the Santa Fe institute. [www.santafe.edu]

Jupiter is primarily composed of hydrogen with a quarter of its mass being helium, though helium comprises only about a tenth of the number of molecules. It may also have a rocky core of heavier elements.

Saumon, D.; Guillot, T. (2004). "Shock Compression of Deuterium and the Interiors of Jupiter and Saturn". The Astrophysical Journal. 609 (2): 1170–1180

Jupiter has all the ready-made materials for a Hydrogen-Helium stellar fusion reaction.

Recent astronomy has provided evidence of distant solar systems containing hot, gas giant planets akin to Jupiter in Earth's solar system. I intend to speculate that by the laws of symmetry and self-assembly within the duality of matter and energy that all physical systems tend to reproduce and grow. From this reasoning I argue that all solar systems with gas giants tend to become binary star systems.

How though could Jupiter ever become a binary star for our Sun given its presumed state of low energy as calculated by our current and prevalent physics? I will present a trigger mechanism for Jupiter based on Tesla's Physics.

Jupiter has a centre of gravity, most probably a seed rock around which the gasses and liquids have then gathered. Jupiter is comprised of predominately non-metallic elements many of which could be compressed by gravity into superconductors around the core. Into this planetary atomic environment comes the energy of the subatomic aether channelled through the centre of gravity at the planets core.

The aether is in and around all atoms and all particles as the aether directly drives their very existence as standing waves in aetheric turbulence. Much like the red spot in the eye of Jupiter – particles are harmonic storm systems directly linked to the medium from which they emerge. Harmonic attributes and arithmetic are constantly to be found even amongst cover-ups like quantum theory and super strings.

Most of the emergent force however would be focused at the planetary centre of gravity, more so than at the periphery of the mass of the planet.

Through the core of Jupiter comes the force and energy that drives the creation of new particles and atoms and this force will seek to radiate out beyond the planets surface, dissipating as a creative force as it gets beyond the planetary mass and atomic and particulate ingredients.

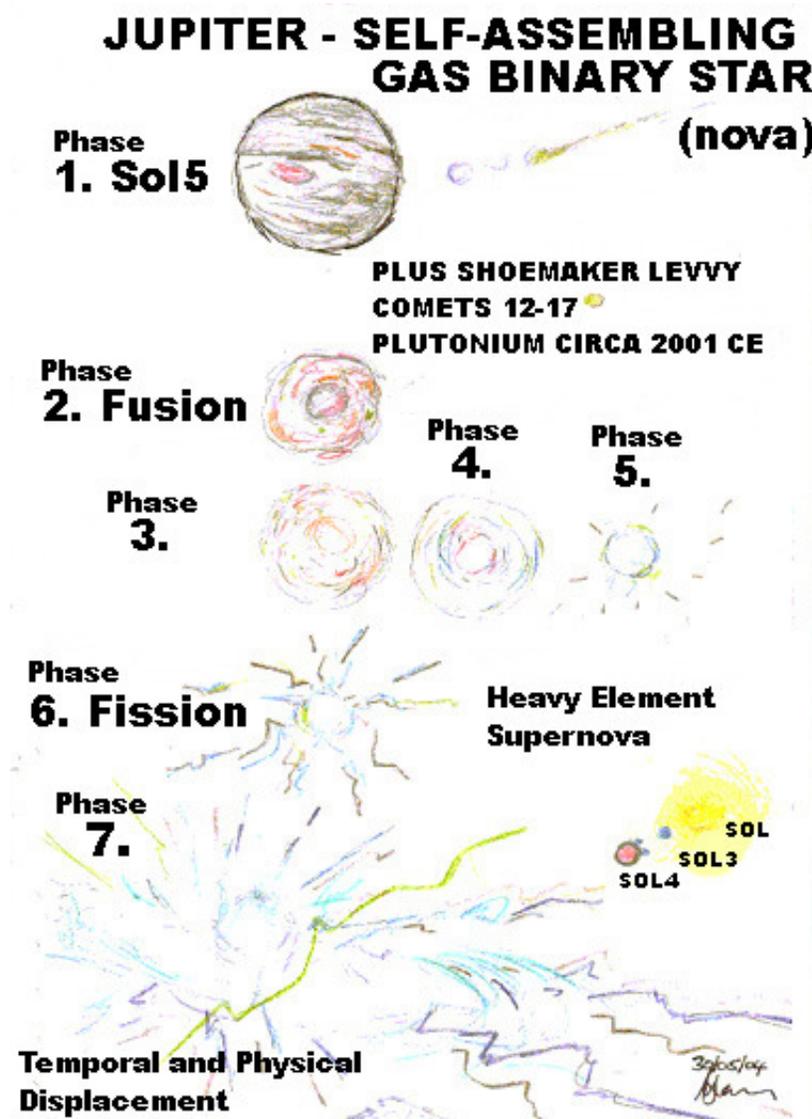
The force of emergence, brings new energies and subatomic particles into Jupiter through its core and will alter, mutate and grow the atoms at the planets core. This will have created over vast time, semi-metallic transitional elements around the seed rock of Jupiter, like a very porous skin comprised of several kilometres of inconsistent semi-metallic atomic aggregates. E.g. some sieves could be seen to 'hold water' if the amount of water going out was less than the amount of water coming in !!

These semi-metallic elements will act like a (very porous) capacitor, holding the suns electrostatic charge and creating a huge potential difference or voltage between the core and the semi-metallic skin. What would usually happen because of the electro-porous nature of the skin, is that the variation in the force of emergence and the variation in the Sun's electromagnetic output that the amount of charge held by the leaking semi-conductor would tend to dissipate

When, however, the electromagnetic output of the sun is unusually high e.g. now.. where most of the planets in the solar system are currently warming up, then less of the electrostatic charge around Jupiter's core will leak away and will therefore build up a massive potential difference between the skin and the core.

When the charge in the semi-metallic skin reaches a critical threshold under these new solar conditions it will or could cause a change of state in its constituents overcoming the physical and atomic constraints to its discharge and will forcibly discharge its massive voltage triggering a cold fusion reaction in Jupiter's core.

Jupiter will then, I predict, follow in the footsteps of other binary star solar systems by self-assembling itself into a fusion driven binary star.



Another twist to this tale and all the what if's is that IF this theory predicts correctly then there is another problem with Jupiter that needs urgent seeing to. As an entity involved in fusion, Jupiter tends to the lighter metallic end of the spectrum but in the year 2001 it was hit by a comet comprised wholly of Plutonium – a very heavy metal. This comet was not Shoemaker-Levy number 9 in 1999 but in the order of Shoemaker-Levy 12-14. The hit of the plutonium asteroid was in 2001 and was announced by Peter Sissons on BBC UK Evening News as an 'and finally' item towards the end of the programme.

Jupiter according to TRE is a self-assembling/maintaining gas giant that would tend to make light metals and semi-conductors/transitional elements around its core as the products of emergence.

More are made around the seed rock at the planets core because that is the centre of matter and of gravity.

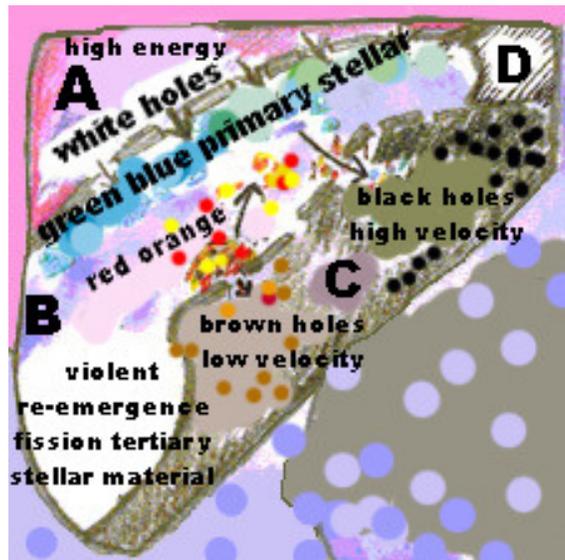
As these deposits of aggregate build up they form a porous skin analogous to the conducting layer of a capacitor as used in electrical circuits to build up high voltages. The sun's recent unusual electromagnetic output will drive the electrostatic charges around Jupiter's core up to massive levels of potential difference between the outer skin and the inner emergence stream at the planet's core.

When a critical threshold is reached e.g. because of sun-spot activity or the injection of extra-solar material, the massive charge will surpass the electrovalent constraints of its boundaries and discharge as a spark into the planet's core creating a fusion reaction. [see below].

Comet Shoemaker Levy 12-14 a plutonium comet could further complicate the new nova's fusion because its heavy metal salts will facilitate fissionable discharges. With a large amount of heavy metal plutonium in the fusion mixture – Jupiter could easily get indigestion, creating not only fusion but fission reactions driven by the extreme weight of the Plutonium. Jupiter might not only be a nova – but potentially could also explode and eject matter into the solar system creating havoc amongst the planets. The presence of a large amount of heavy metal salts could potentially be disruptive and antagonistic as the elements engaged in fusion would have been primarily lighter.

Appendix 1. Black holes as creators

My theory of relativity/physics/cosmology predicts that a black hole could create and eject stars - but I thought that they would be more of a secondary or tertiary nature - depending on the stellar material that is being regurgitated. I think it may be possible for the black hole to eject blue/hot stars as a possible 'white hole' on the end of it may be somewhere very high energy. I think that the gradient funnel behind a black hole can be substantially weakened - and when the force of the exit material slows down - it would react inside the funnel and vomit up new stellar material.



The force of Emergence is equal and opposite to Entropy - emerging free energy particulate aether squashes everything together by compaction. Atoms and Particle shells are formed from the outside in - shells first.

Adjacent cosmic bubbles or universes could have ever changing gradients of equality and inequality.

Black holes may slow down their drainage or even manufacture and eject tertiary stellar material or stars because fusionable elements are spending longer together.

Hubble finds mysterious disk of blue stars around a black hole, 09/20/2005

Astronomers using the NASA/ESA Hubble Space Telescope have identified the source of a mysterious blue light surrounding a supermassive black hole in our neighbouring Andromeda Galaxy (M31). Though the light has puzzled astronomers for more than a decade, the new discovery makes the story even more mysterious. The blue light is coming from a disk of hot, young stars. These stars are whipping around the black hole in much the same way as planets in our solar system are revolving around the Sun. Astronomers are perplexed about how the pancake-shaped disk of stars could form so close to a giant black hole. In such a hostile environment, the black hole's tidal forces should tear matter apart, making it difficult for gas and dust to collapse and form stars.

"Seeing these stars is like watching a magician pulling a rabbit out of a hat. You know it happened but you don't know how it happened," said Tod Lauer of the National Optical Astronomy Observatory in Tucson, Arizona. He and a team of astronomers, led by Ralf Bender of the Max Planck Institute for Extraterrestrial Physics in Garching, Germany, and John Kormendy of the University of Texas in Austin, made the Hubble observations. The team's results will be published in the Sept. 20, 2005 issue of the Astrophysical Journal.

Appendix 2. Aether as a gas

This article demonstrates that the electromagnetic aether is a continuum And that energy and mater, indeed the whole material universe at all Scales and magnitudes produces such turbulence and transactions. This experiment shows that energy follows chaotic turbulence and Discharge patterns similar to larger scale fires burning in a turbulent gas atmosphere of air. .The fluid and chaos model for fire is the same one for particulate energy – hence the dancing electromagnetic flames are not being disturbed by a total vacuum but by the aether.

Binary Research Institute Ref: <http://www.physorg.com/news6428.html>, 'Magnetic flames' in molecular magnets exhibit properties akin to fire, 08/23/2005

In a groundbreaking experiment, Yoko Suzuki and researchers, Eugene Chudnovsky and Dmitry Garanin from The City College of New York (CCNY) and Lehman

College have measured the speed of magnetic avalanches and discovered that the process is analogous to the flame front of a flammable substance. The discovery of a "magnetic flame" could make it easier for engineers to study the dynamics of fire. Professor Chudnovsky proposed that the effect is, in fact, "magnetic burning".

Magnetic avalanches occur when the polarity of a molecular nanomagnet is changed suddenly and sufficient energy is released to cause a chain reaction that changes the polarity of the other molecular nanomagnets in a crystal.

"Molecular nanomagnets are the first-known magnetic materials in which the magnetic energy density is sufficient to ignite a `magnetic flame,'" said Dr. Myriam P. Sarachik, Distinguished Professor of Physics at CCNY"

Appendix 3. Sub-atomic chaos

Here is more corroboration for chaos at atomic and subatomic levels: That the Universe is entirely non-linear.

City College of New York, Fibonacci series on microstructures, 08/18/2005

It is a big challenge for materials scientists to produce highly ordered micro- and nano-structures in a designed pattern with uniform size and shape. By controlling the geometry and the stress upon cooling, CAS researchers coaxed a microstructure to self-assemble into the triangular tessellation and Fibonacci number patterns on its surface. Their work 'Triangular and Fibonacci number patterns driven by stress on core/shell microstructures' was published on the August 5 issue of Science.

Fibonacci patterns come from a numerical sequence that fascinated the Italian mathematician Leonardo Fibonacci in the early 1200s. Each entry of the sequence is obtained by adding the two previous numbers together: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34, 55, 89, 144.... The patterns have been noted to frequently appear in biological settings, like the spiral arrangement of the florets, seeds, sepals and scales on such plants as pinecones, pineapples and sunflowers.

For a spherical microstructure, a uniform triangular pattern appeared, containing some defects to enable it to cover a spherical surface - these took the form of five- or seven-fold triangles around a vertex. For conical microstructures, on the other hand, cooling led to the formation of the bumps in a spiral pattern, which were arranged in two sets of spirals, running in opposite directions. Curiously, the numbers of spirals in each pair of spiral sets were always adjacent members of the Fibonacci series. The researchers found sets with 5 by 8, 8 by 13, and 13 by 21 spirals.

This is the first time that the triangular tessellation and Fibonacci number patterns have been grown with inorganic materials on a micrometre scale, according to the CAS researchers. They further revealed the formation mechanism and conditions for the patterns on the basis of an analysis on their structural characteristics. "*From our results we see that it is the geometry of the supporting surface, on which the stress strives for a minimal strain energy, that tips the formation of patterns,*" says

Prof. Cao. It is speculated that "The various seemingly different patterns for botanic elements such as sepals, seeds, and florets can be explained by the unique mechanism to minimize the total strain energy under a given geometric constraint, without resorting to any genetic or biochemical factors."

Appendix 4. Irregular matter in the Cosmos

This article shows that stars and galaxies can drift between dimensions of opaque and transparent matter as predicted.

NASA's Evolution Explorer Galaxy proves the theory of constant birth and death of galaxies controlled by the parallel universe
India Daily Technology Team www.indiadaily.com, Jul. 31, 2005

The unusually young galaxy, called NGC 4625, is a remarkable find because it is relatively nearby.

"This galaxy is an amazing surprise," said Dr. Armando Gil de Paz of the Carnegie Observatories, Pasadena, Calif., and lead author of a paper appearing in the July issue of Astrophysical Journal Letters. "We are practically up-close and personal with a galaxy undergoing an evolutionary stage that was thought to occur only at the dawn of the universe, in very young and faraway galaxies."

This just proves the theory of constant birth and death of stars and planets.

Why are scientists so surprised with these kinds of discoveries in the physical universe? It is because, from TRE, that the physical universe is really a lower dimensional replica of the parallel universe. What happens there could be replicated in physical terms in the physical universe.

"The stars in the arms are about one billion years old, while the stars in the body are about ten times older," said Gil de Paz.

Appendix 5. List of Technical Sources

Theodore C. Loder, III, Institute for the Study of Earth, Oceans and Space,
University of New Hampshire, Durham, NH 03824
Source: <http://www.seaspower.com/Outsidethebox-Loder.htm>

"OUTSIDE THE BOX" SPACE AND TERRESTRIAL TRANSPORTATION AND ENERGY TECHNOLOGIES FOR THE 21st CENTURY

List of Sources from Loder, TC, indicate the historical depth of knowledge of non-Einsteinian physics, much of it having been successfully hidden from the masses and scientists in general over the last 100 years.

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Appendix 6. The four atomic clocks experiment by Hafele and Keating.

This experiment also proves the Hennessey hypothesis that time is a field effect of mass – that time is a gravity wave. The clocks at high altitude are further from the centre of gravity therefore experience less time. It may also prove Einstein's ideas too – but the same experimental data fit the Hennessey Model – that a gravity field is a time field. Time is Gravity [Hennessey] Time is directly proportional to mass and to gravity. Gravity and time are one and the same field.

Einstein also believed that a gravitational field affected time, which was later verified with atomic clocks. Special Theory of Relativity applied to gravitational fields shows that a gravitational field slows time.

Hafele and Keating Experiment "During October, 1971, four caesium atomic beam clocks were flown on regularly scheduled commercial jet flights around the world twice, once eastward and once westward, to test Einstein's theory of relativity with macroscopic clocks.

This experiment also proves the Hennessey hypothesis that time is a field effect of mass – that time is a gravity wave. The clocks at high altitude are further from the centre of gravity therefore experience less time. It may also prove Einstein's ideas too – but the same experimental data fit the Hennessey Model – that a gravity field is a time field. Time is Gravity [Hennessey] Time is directly proportional to mass and to gravity. Gravity and time are one and the same field.

"The experimental results provide an unambiguous empirical resolution of the famous clock "paradox" with macroscopic clocks."

J.C. Hafele and R. E. Keating, Science 177, 166 (1972)

When they returned and compared their clocks with the clock of the Observatory in Washington, D.C., they had gained about 0.15 microseconds compared to the ground based clock.

i.e. less time further away from the centre of gravity thereby demonstrating the TRE premise that time is a field-effect of mass..

'Tripartite Essentialism' ISBN 0953203409, Hennessey, 1991

1.2.6 Interdimensional Cosmology

'Time and Space: two insuperable limitations or new perspectives for the technocratic societies?'

Although time and matter's gravity in my opinion are one and the same thing – the possibility of timelessness in human society and timeless travel could open the door on a new era of social interaction and social meaning.

There are precedents in the ancient records for such an evolved society and

cosmology.

My own interest in time travel led me to understand what the ancients already seemed to know.

I had been researching issues of time travel cosmology for a few years and had noted that backwards time travel might be far easier than forwards time travel – for reasons, which I explain below in my cruise liner analogy.

I had been looking into some of the mechanics necessary for teleportation and forward time travel and had developed a general systems theory which could have been used as a framework for such forward transmissions.

At its heart it is based upon the idea that although there is an infinity of objects and events in the universe – an infinity of combinations that are too great for any computation we know – there is actually a limited and fixed number of the kind of events that can take place in the cosmos.

There is a limited and closed number of processes/transactions that can happen during every event in the Universe.

Using a Boolean analogy – I modelled a short series of universal and law-like events in a unique arithmetic that had a fixed and finite number for zero and infinity.

I reasoned for the purposes of time/space travel that given any known future energy landscape or distant context as a frame of reference – such time-space transmissions encoded using this new language and sent from our own time space could be recalibrated according to their new target context without distortions produced by unknown zeros and equations and distortions relating to infinity. These are major steps away from Goedel's Logical numbering paradox and the infinite recursion and paradox of computation [Halting problem] noted by Turing.

I then developed a time space cosmology that seemed to have parallels with the ancient record although I arrived at those anciently described ideas by my own contemporary route.

Our accepted understanding of time and the cosmos is probably false. An understanding of the time, matter and gravity concepts (on the lips of abductees and 'Black Ops' scientists like Dr. Michael Wolf and the basics of the Secret Science) agrees with my own paradigm and show us the possibility that gravity, time and mass are all one and the same. In all likelihood, it is easier to travel through time and dimensions by spinning a magnetic disk, than it is to travel between distant galaxies with never to be found 'dilithium crystals' of Star Trek.

This one issue, if true would predict that interstellar time space and intergalactic time space were not operating the same kind of time or matter as our solar system. Indeed partially materialised dark matter galaxies have been recorded. e.g. The unusual galaxy, called NGC 4625, proves the theory of constant birth and death of stars and planets and it is relatively nearby. Dr. Armando Gil de Paz of the Carnegie Observatories, Pasadena, Calif, in July issue of Astrophysical Journal Letters. "We are practically up-close and personal with a galaxy undergoing an evolutionary stage that was thought to occur only at the dawn of the universe ..,"

Travelling through mountain ranges and chasms of aether and newly emerging dark

matter and cosmic schisms and structural inconsistencies in the fabric of time space the ET traveller would need to effectively get above this geography to make traversing it easier.

There are indications in our modern day records that point to the understanding of timespace known to our ancients.

One of the main features of interstellar travel (that was seemingly disclosed by ET's), is that they travel by pulling their destination to themselves. This doesn't sound like Star Trek does it? This is how it probably works: by taking their ships out of gravity (and therefore time) and the physical conditions of this dimension (by getting on a high mountain top of free energy at no cost to themselves), their destination seems to swirl closer towards them because distant things look closer together, i.e. city blocks look very close together from Earth's orbit. Then, they then drop more easily onto their destination, with the minimum of physical adjustment, but using the maximum of free energy.

This kind of ET interstellar travel may operate on the principle that mass and matter is directly related to the amount of gravity measured.

This relationship between gravity and time has been observed by humanity.

The 4 atomic clocks experiment by Hafele and Keating also proves a Hennessey hypothesis that time is a field effect of mass – that time is a gravity wave. The clocks at high altitude are further from the centre of gravity of the Earth and therefore experience less time.

The 4 atomic clocks experiment by Hafele and Keating may also prove Einstein's ideas too – but the same experimental data fits and adds empirical weight to the Hennessey Model – that a gravity field is a time field.

I propose that Time is Gravity [Hennessey] Time is directly proportional to mass and to gravity: Gravity and time are one and the same field.

The more mass, the more gravity, the more empirical time and that the spinning magnets of the electrogravity technology of e.g. Townsend Brown – anti-gravity are also capable of being anti-time machines.

The less mass there is – the more energy there is – the less time there is .. and this idea is borne out by accounts of timelessness and OBE's and other people who allege encounters in the Spirit Realms.

The ancient records speak of an understanding of the kind of time space cosmology that fits with the consequences of antigravity and anti-time and depicts islands and mountains in time space.

Gulfs, mountains and canyons and rifts do appear in the universal energy seas, but these are directly driven by absolute and universal chaos, not the limited linearity of the accepted Hawking model.

There are clear parallels and parables in documents like the KJV that illustrate a cosmology that is currently being related by contactees.

The Angelic worlds above our own frequency set operate on rational not irrational principles – and traditionally tend to be witnessed as more timeless where the rules of matter are easily mutated by will and abundant energy.

Here, human or other local intervention in or reversal of related and affected electrogravity and delta of change in gravitational-gradients of fluid-aether is not pre-ordained. Total reversals are impossible because the flow is always one way from the macrocosm. Although aspects of this local Dynamic are subject to our free will in our microcosmic context.

In this respect, locally constructed technology will always be struggling to attenuate macrocosmic intercession in microcosmic processes.

Where there is a paradigm of less time, more spirit and more energy - we tend to associate the Spiritualist tales of magical realms of creativity where matter is responsive to will. Artefacts are then allegedly created by our spiritual heart, not by perpetually failing circuit boards.

Even the Verdants according to Philip Krapff claim to have taken their ships up the frequencies to `heaven' or somewhere near it.

In UFOLOGY there are tales of the flight dynamics of alien spacecraft where abundant free energy is pumped into the hull envelope making it antigravity which causes the vehicle to rise above the concrete properties of local mass in this our density or Cosmos. It climbs the mountains of energy and time space.

The more energy, the less mass, the less gravity, the less time there is ... and inversely, the more mass, the more gravity, the more time there is – and this fits in with the notion of timelessness and high energy and high frequency that we have already garnered from tales of the spirit worlds in books such as *The Life Unseen* by Anthony Borgia, and *The Life Elysian* by Robert James Lees.

It also fits in with the sometimes sinister cosmology of the faerie realm portrayed clearly in collected folklore tales and anecdotes by ethnologists such as; M M Banks in *British Calendar Customs*, vol 1-3, 1937, Grimm's *Teutonic Mythology*, Grimm, 1901 and also the Rev Robert Kirk in *The Secret Commonwealth of Elves, Fauns and Faeries*, 1697AD.

In those tales of faerie abduction that folklore is so replete with, the abductee is usually only gone for a short length of time in the faerie land but usually seven years have gone by in the world of mankind.

This suggests that the world of mankind is actually operating on a much higher frequency of evolutionary scale than the world of faerie.

The cycles of our seasons go round and round and round in fast-forward compared to the abducted soul in the faerie realm stuck in relative stasis for sometimes what only appears to be a few hours.

The realm of Angels therefore is operating at a much higher frequency than all of this. Terrafirma is faster than faerieland, but relatively speaking in relation to our own time space and cosmos the Angelic realm is way way up a frequency mountain and possessing the perspective to diminish distant events in this our time space to seeable and foreseeable reality. In some way our lives and futures appear mapped out to them. Theirs the greatest heights and love and timeless perspective.

Mass in our density or plane will also produce harmonic images or dimensions/resonances of itself that we have noted in the human records as Mythic or Theological e.g. Heavens, Planes, Spheres, Continuum, Nirvana etc

In the KJV bible, an old document, there are hints of a whole realm and state of being that is quite independent of what we take for normality. In some of the quotes that follow it appears that a very realistic cosmology and philosophy of time was being operated anciently that bears little resemblance to the world of 20th Century Stephen Hawking.

Isaiah 2:2 And it shall come to pass in the last days, that the mountain of the LORD'S house shall be established in the top of the mountains, and shall be exalted above the hills; and all nations shall flow unto it.

With or without Einstein, Angels have been coming and going throughout the millennia on this planet and often showing that they have advanced prophetic knowledge of events that are going to occur as if they are already written. I think that these events in our plane or dimension are written such that they can be largely seen from other dimensions and high energy time zones and that we as people are always looking at known yesterdays when we act out these parts we inhabit here – albeit with our own unique interpretations. The spiritual issue for participants here isn't so much that the mechanics of the Earthly play are known it is in the unique interpretation of the script, and the performance, dedication and focus of the actors. This next bit proposes the idea that predetermination in our lives is partially true.

There are therefore very real possibilities that our lives can live in all sorts of timelessness and that we can move through these time zones to take part in all sorts of creations and matter that are high energy and more responsive to our creative will.

Forward time travel within our own density without angelic co-ordination according to my own research is possible, although more difficult than merely going back over old ground.

All of the matter of this density or cosmos that we inhabit is like a bubble in the foam of a massive multiverse. Living in this cosmos is like being on an ocean liner that has a forward momentum and we can often predict where it is going to be, quite accurately in the short term. Long-range time travel with storms and undercurrents in the aetheric ocean of the multiverse makes knowing where to jump onto our future ships position less likely to accurately predict from within our own time space perspective.

If we mistakenly predict and project the future winding course of time space relative to ourselves we may accidentally end up in some muddy creek in a drifting island pocket in our cosmic ocean.

(that may well not be a mountaintop but a hell or at best a zone of purgatory next to hell.)

We begin our voyages through time defined in terms of our local cosmos whether physically or energetically or spiritually.

Everything around us is intimately interlinked on all scales in context.

The ocean liner is made out of iron and steel and the passengers of carbon because we inhabit a tertiary star system full of more complex tertiary matter and that the core components of iron and carbon are central to the chemistry of the central planets and also the oxidative metabolism of most of its biological life forms.

The physical chemistry that spontaneously organizes to emerge new life is mimicked and duplicated by the intellectual capacity of human life. Transfers between high and low duplicate the laws of organization and bonding in chemistry by crystallizing and emerging social organizations and social adaptations. These emergent social structures are driven by the context of the environment and any other interference or constraint.

Indeed the emulation of the physics of nature and nurture in Christ's New Covenant is likened to an efficiently performing biological vine in John 15 and I write about this in the section on TRE Divinity:

The appearance of matter and our integration with it is an illusion however, but the matter works its own logistics out via the dualistic processes within it e.g. opposites; entropy and disintegration operating against the law of emergence and order out of chaos. Fission or breakdown or combustion operates against Fusion and spontaneous growth.

Order and Chaos is a secret school and illuminati motto and one of the most abandoned and discarded truths within the charade of human science. The chaos law of Emergence is the buried key to eternity and the buried truth of our free lunch, free energy and free souls.

e.g. Just try to find Dr Stuart Kauffman's paper 'Auto catalytic Self-Organizing Polymers' – the spontaneous DNA for nothing anti-Darwin scientific discovery. [Originally at www.santafe.edu]

Our cruise liner time space with all its components and ingredients has its own forward momentum on the ocean of an infinite continuum between other seas and other bubbles and other higher dimensional harmonics and echoes of these.

The realm of our Angels sits high up in the frequency mountains above this, our density.

From what we know therefore we can work out that if we were high up on a frequency mountain somewhere – we can see where our time wave and cruise liner was going from a totally different perspective.

I do not believe that every small detail of how we react at breakfast time on the cruise liner is already known, or exactly what weather or preference of clothes one might favour on that day is known, written down and set down in advance for us whether we like it or not.

We were created in my opinion truly and totally free to choose.

Generally, though although there are many other Cruise liners and many other kinds of ship, the course, cargo manifest and itinerary of our cruise liner is already set on our "cruise ship earth/solar-system".

This is because all material things we wish to incarnate and locate into are governed by the rules of materials and their interactivity.

What is on life's menu and the selection to be offered up is already written in advance, perhaps already governed by the presence or absence of harvests and produce that were themselves driven or excluded by environmental conditions and that what the onboard entertainment is going to offer up is already part of the ships itinerary – a form of entertainment whose pessimism or austerity or optimism and

frivolity is itself influenced by the relative abundance of the wheat/staple harvest or energy/fuel demand that is directly driven by warming or cooling from the presence or absence of sun spot activity.

We can select from these things or choose to refuse in my opinion.

Why, though would we as higher density spirits buy into a life that we already know all about and can see laid out from a different perspective for that might be like seeing a rerun of a film all over again.

The adventure in my opinion is in the application, interpretation and re-interpretation of the obstacles and the details that we choose to use or create.

I believe that every soul that buys a ticket/DNA for this cruise liner gets a book of outlined drawings or scripts based on the part of the ship that they occupy for them to colour in, but that whether we produce a Da Vinci or Cartoon at the end of the process is up to ourselves.

To a great extent though the activities and details of the journey of the cruise ship are very predictable based on the ships manifest, supplies, necessary crew and passenger list.

It is in this model entirely possible to get above the local geography of this time space and view the topology from a great height.

Matthew 4:8 Again, the devil taketh him up into an exceeding high mountain, and sheweth him all the kingdoms of the world, and the glory of them;

9 And saith unto him, All these things will I give thee, if thou wilt fall down and worship me.

10 Then saith Jesus unto him, Get thee hence, Satan: for it is written, Thou shalt worship the Lord thy God, and him only shalt thou serve.

11 Then the devil leaveth him, and, behold, angels came and ministered unto him.

Luke 4:5 And the devil, taking him up into an high mountain, shewed unto him all the kingdoms of the world in a moment of time.

It seems that from all the lore we know, whether from the older Religions or the pagan or Spiritism - that Angels dark or light can find vantage points over the time space of the cruise liner in which we are being conveyed.

There are also clear accounts of prophetic visions from e.g. the Brahan Seer in Scotland in the 17th Century who foretold all sorts of changes in Scotland, and also from 800BC where the prophet Isaiah clearly foretold of the coming of Christ.

There are also other accounts of time space tinkering by the Greys in UFOLOGY where perhaps during some stage managed process with a stage hypnotist aboard the cruise ship memories of our time out have been erased and hastily spliced together like some bad video editor to give us Déjà vu. Not a seamless job by the aliens.

Sometimes on cruise ship Earth the ships passengers matrix radio will tell us that there is to be some Bingo at the swimming pool, and many people unconsciously pick that up and go there – thereby generating a synchronicity where they meet all

sorts of people from other walks of life in the process who also like Bingo too. In the realm of Angels and in the life and Great work of the Saints and Angels, many come down from the great heights of these mountains and vantage points and often we dine with Angels unawares at breakfast. These enigmatic people never seem to have the right cabin number, or have differing credentials and they never seem to be where they should be, for in truth they are not really of the places that they appear to come from.

Angels though are not bound by the rules of cruise ship Earth or its dark alien dependents and farmers and don't really care about the energy of breakfast as a necessity of any kind of energy that they must intake.

Technically Beings of higher levels of energy could be in stealth mode relative to here.

John 3:8 The wind bloweth where it listeth, and thou hearest the sound thereof, but canst not tell whence it cometh, and whither it goeth: so is every one that is born of the Spirit.

Acts 27:22 And now I exhort you to be of good cheer: for there shall be no loss of any man's life among you, but of the ship.
23 For there stood by me this night the angel of God, whose I am, and whom I serve,
24 Saying, Fear not, Paul; thou must be brought before Caesar: and, lo, God hath given thee all them that sail with thee.

In Christ's teachings, and in particular the fact that almost every reference to His divine origins is so often and so obviously hacked and sabotaged by edit after edit throughout the ages of mankind – we can still see some evidence of the fact that He could see down the timelines of all of those in His vision.

John 21:18 Verily, verily, I say unto thee, When thou wast young, thou girdedst thyself, and walkedst whither thou wouldest: but when thou shalt be old, thou shalt stretch forth thy hands, and another shall gird thee, and carry thee whither thou wouldest not.
19 This spake he, signifying by what death he should glorify God. And when he had spoken this, he saith unto him, Follow me

Matthew 26:34 Jesus said unto him, Verily I say unto thee, That this night, before the cock crow, thou shalt deny me thrice.
Matthew 26:73 And after a while came unto him they that stood by, and said to Peter, Surely thou also art one of them; for thy speech bewrayeth thee.
74 Then began he to curse and to swear, saying, I know not the man.
And immediately the cock crew.
75 And Peter remembered the word of Jesus, which said unto him, Before the cock crow, thou shalt deny me thrice. And he went out, and wept bitterly.

The other realities of Christ's teachings that make up part of the Gospel are the many miracles of energy and will over matter; in water to wine, food from energy, the rescripting of blind eyes, the healing and material transformation by energy and spirit of all sorts of disease.

There are many other doctrines and schools on planet Earth that offer similar powers and godlike abilities, and it can be seen in the activity of alien beings and their abilities to proceed through the walls of our cruise ship reality, some to heal and others to wither that energy invested into or taken out of people and objects can change their states for good or ill.

Some Grey abductees for example complain of incurring serious back injuries and other ailments.

Others claim healing by Greys and other kinds of Beings from the stars in our Cosmos.

For Beings from the Angelic realms and for Christ is the promise of real power and real responsibility.

Matthew 21:21 Jesus answered and said unto them, Verily I say unto you, If ye have faith, and doubt not, ye shall not only do this which is done to the fig tree, but also if ye shall say unto this mountain,

Be thou removed, and be thou cast into the sea; it shall be done.

Mark 11:23 For verily I say unto you, That whosoever shall say unto this mountain, Be thou removed, and be thou cast into the sea; and shall not doubt in his heart, but shall believe that those things which he saith shall come to pass; he shall have whatsoever he saith.

Angelic powers do not operate by the rules or needs or dependencies or investments of this cosmos. Beyond our idea of time and matter are works of massive powers and social healing and creation.

Mark 4:37 And there arose a great storm of wind, and the waves beat into the ship, so that it was now full.

Mark 4:39 And he arose, and rebuked the wind, and said unto the sea, Peace, be still. And the wind ceased, and there was a great calm.

Mark 4:41 And they feared exceedingly, and said one to another, What manner of man is this, that even the wind and the sea obey him?

Also, if Angels and other travellers need the tokens to operate our Cruiseship reality, then they can cause them to manifest from anywhere in a respectful manner.

Matthew 17:27 Notwithstanding, lest we should offend them, go thou to the sea, and cast an hook, and take up the fish that first cometh up; and when thou hast opened his mouth, thou shalt find a piece of money: that take, and give unto them for me and thee.

In Gospel teachings – which is what I am more familiar with – is demonstrated an advanced chaos cosmology, [knowledge of which is also used by Nigel Kerner in his disclosure book on Grey farming cosmology called The Song of the Greys], that one day the bubble in the multiverse foam that is the density of Cruiseship Earth will one day burst in the natural course and order of things.

Isaiah 34:4 And all the host of heaven shall be dissolved, and the heavens shall be rolled together as a scroll: and all their host shall fall down, as the leaf falleth off from

the vine, and as a falling fig from the fig tree.

Matthew 24:35 Heaven and earth shall pass away, but my words shall not pass away.

In an endless multiverse of bubble upon bubble in a fractal and vast foam at all and every scale there are infinite roads and paths full of God, portals between and through bubbles at all scales. There will be wannabe gods and energy hungry beings though not all these paths in my opinion lead to the perfection of family and love and communion archetypally illustrated by Christ.

Ultimately – given the enormity of magnitude and scale that abundantly supplied and abundantly powerful beings can operate at .. it is entirely possible that a couple of enormous hands could lift our cruise ship out of the water.

The love of community and of the heart operates quite independently of scale and magnitude however, and the eternal fig tree of which our burdened cruise ship is only a small part has many mansions and palaces and mountains and temples at all scales for all scales of beings.

Revelation 7:1 And after these things I saw four angels standing on the four corners of the earth, holding the four winds of the earth, that the wind should not blow on the earth, nor on the sea, nor on any tree.

The television that we pay so much for in our ships cabin on cruise ship Earth never seems to stop telling us what is possible and impossible. Yet it is more than ever apparent that with love and the will to act lovingly at any scale or order and magnitude of energy – all things seemingly incredible have to be possible for us and others: many other things, exciting and fulfilling things beyond our human and often deliberately poisoned imagination.

This too was part of Christ's promise to us.

1.3 TRE Modelling of Human Behaviour and Society

A Behaviourist and Reductionist model for the modelling of humanity and human society is outlined here, using Tripartite Propositions that generate eight-expected outcomes.

It is assumed that you will have read the TRE Introduction in order to be familiar with the Tripartite Theory.

It will cover deterministic ideas from within socio-economics and marketing, a view that sexual politics can be programmable and that human life and social opportunity can be modelled by such ideas as; 'containers', stress, power-law field-theory of inter-relationships etc

Having looked at soul-less biological determinism, this section will also offer Tripartite versions of human society, consciousness and soul.

1.31 Biological and Sociological Archetypes

Humanity is a very, very complex proposition to model, unless there are a few basic essentials that can be controlled by the 'controllers'.

Industrialists though have at their disposal through collections of consumer data on the life processes of the population as; ergonomic and demographic statistics, health records and social science research, a good performance model for class structures within society. From information collected from e.g. supermarket and store smart cards and credit card and loan research we have good examples of social performance and expectations.

This we know because we can never seem to shake off the adverts from any online shop we have been to weeks after we went there.

Research subjects under study were exposed to various levels of excitation from market research and marketing rollout of new products. Qualities of product performance could be inferred from relative; colour, sound, form, taste, smell, touch, sexuality, and, volition/intention, and that information could be aggregated and linguistically correlated in rough categories with the social expectations of the alleged social caste system.

Such patterns of life occur within a personally defined or expected zone.

Territoriality that is biologically driven requires the establishment of a certain zone or space that may not be occupied by any other person or animal. In applying the idea of territoriality to human society, we should ask the following questions.

Do dominant people claim more space than their subordinates ?

Do human beings, as a species, have any orderly way of assigning space to individuals?

Do human beings need to have a private space for themselves ?

The answer to all three questions is yes.

Goffman E, 'Relations in public' pub. 1971, New York, Basic Books, tells us that:

'personal space is an elongated sphere that extends outward in front of the body and not as far out on either side or in the back. People who interact usually stay outside each other's sphere, though intimates may be welcomed within it. In a crowded 'supermarket' more general intrusion may be permitted, but only temporarily. The size of the average sphere differs from one culture to another. ... In pedestrian traffic a person becomes a sort of vehicle, shuttling between other bodies and avoiding collisions by signalling intended movements by means of glances and gestures. The human race has developed a system of etiquette for assigning space to individuals By settling yourself in a particular spot you can stake out a claim to a large or small space, and that claim will usually be recognised by others. Robert Sommer has studied the process by which people claim space. He asked the following question: suppose you enter a library and choose a seat at an empty table. If

you want to remain alone at this table as long as possible, which chair will you choose ? Sommer found that people who wanted to discourage others from taking a seat at that table would take a seat in the middle. [Sommer R, 'Personal Space' pub. 1969. Prentice Hall]

By driving levels of consumer expectation and by careful presentation of the marketing excitement such that seasonal or socially topical ideas would confer growth and viability – levels of spend and their personal and social results would be seen to impact on the lives of the consumers e.g. 'Black Friday' or 'Christmas shopping' etc These associations of product commitment and enhanced life performance or expectation could be periodically reinforced and augmented by follow up product redevelopment. E.g. the latest iPhone upgrade or App.

Entrained associations, therefore, could be a benefit to both consumer and society in general.

Also to make this feasible as a tool of operant behavioural control in terms of both driving the alleged social health and the industrial good we would have to measure changes in intentions and levels of avoidance behaviour and available industrial resource, in order to enact some kind of regulatory and political maintenance.

Once the key social assets had been identified and managed, greater inroads could be made into the integration of the society.

Also, to keep evolution and change as distortion free as possible, we may perhaps employ another regulatory body, to participate in, or oversee these activities.

e.g. the role of Ofcom (regulating body) in Media and television is said to protect consumer interests.

With the strategy of a top down - hands-on affectation of social behaviour in play through various research conjectures and refutations from both the industrial and consumer sectors and another regulatory body in place, a strategy for coherent social change may progress under evaluation.

The psychological expectations, abilities and realities of the species operating within their social remit can be classified and evaluated using anthropomorphic constructs. The male, transgender and female form are aspects of a microcosm that reflect in their outward garb and appearance both personal and social viability.

Indeed current fragrance advertising even in 2016 is blatantly hetero-philic with Olympian-like gods and goddesses playing the archetypal role of 'sporting hero' and 'sensual seductress'. However although it can still be suspected that such 'heterosexual driving' is at the heart of social components such as the 'nuclear family', it is instead a new media-driven social constructionism of home-making relationships that appear to have superseded the nuclear family in the West.

The Male and Female psychological states, driven by the endocrine system and its sexual hormones also produce some physiological transitional states of relative; gender activity, roles and reproductive and peer group success e.g. within the spectrum of non-hetero sexuality and gender.

e.g. Tripartite Relativity proposes that there are twenty seven Gender states, nineteen of which are transient or undecided and eight of them are decided - which can be worked out from the following Tripartite proposal of the form:

Macro - male or female genotype/physiology

Meso - male or female environment/activity/social roles

Micro - male or female expression

It can be viewed that although someone has the appearance of one biologically distinct body that, initially, gender, or polarity assignment is not static - it is fluid. Ultimately a conscious choice can be made, e.g. biological and metabolic self-recognition, or, a selective filtration or augmentation of lifestyle with the conscious exclusion of some peer group and environmental and social history.

With gender roles changing within the population in the 21st Century and with it a more inclusive paradigm for those whose gender choices were at variance, the days when it was possible to crucify LGBT sexuality at least in the Western Democracies are almost over.

e.g. the brilliant Alan Turing was subject to horrific persecution by the British establishment during the 1940's and 1950's. Though his contribution to the war effort played *'a pivotal role in cracking intercepted coded messages that enabled the Allies to defeat the Nazis in many crucial engagements, including the Battle of the Atlantic; it has been estimated that this work shortened the war in Europe by more than two years and saved over fourteen million lives'*, he was made subject to terrible psychiatric procedures because he was homosexual. Copeland, Jack (2012). *"Alan Turing: The codebreaker who saved 'millions of lives'"*.

The basic social and biological program for majorities in the Western world though in the ears of most American Country lovers can be heard from "Stand by Your Man" a song co-written by Tammy Wynette and Billy Sherrill.

This basic, bottom line - unconscious 'biological determinism', or, materialism, or 'existentialism' or, 'logical realism', could be manipulated by social engineers. However, although there may be an unconscious biological determinism at the heart of some social groupings, it is actually a conscious rights-activist driven and media re-enforced model of a diversity of relationships, that has become a mind-driven choice of socialisation at least within Western culture. This mind-based or conscious drive appears to have risen to become the prevalent reason to create a social investment in a home or social group that is staying together.

My personal view is that the soul exists but its loving empowerment does not necessarily drive social and personal life. The soul can be dragged by distractions, pollution and worldly noise into sensate transactions that can be ultimately selfish and self-demeaning, although some transactions can be very beneficial, taking the form of service-to-others.

This section of the work truly refers to people in a 'state of being' that is dependent on the world of matter for their cues. These people as current psychiatry would suggest are driven by biological and biochemical necessity.

I believe, however, unlike current science, that for most there are varying degrees of

influence of both soul and biology.

This section deals with the influences of biological determinism or socially constructed relationship groups without reference to soul. A soul-less and un-loving stance therefore, some may say, but here defined is a relative bottom line from which we know that we can choose to deviate and spiritually grow. In so deviating we can more easily identify the works of the human soul and its need for God.

Biology-driven or, Basic Humanity tends to wear its psychological state upon its form in the manner of clothing and also in its selection of social and personal umbrella. We can be seen to be searching out symmetry, affinity, harmony, resonance and opposites within our sexual and intellectual social groupings. A basic human heterosexual caricature or archetype derived from rudimentary binary biology has almost nothing in common with humans of higher functions and aspirations, e.g. those mind and spiritually orientated.

Two kinds of human relationship driving by e.g. social engineers can be inferred.

1. unconscious, biological determinism
2. conscious, mind-orientated choices

1. The Libidinous (Heterosexual) Unconscious – a Model.

Libido, colloquially known as sex drive, is a person's overall sexual drive or desire for sexual activity. Sex drive is influenced by biological, psychological and social factors. Biologically, the sex hormones and associated neurotransmitters that act upon the nucleus accumbens (primarily testosterone and dopamine, respectively) regulate libido in humans. Social factors, such as work and family, and internal psychological factors, like personality and stress, can affect libido.

The anthropoid species operates in terms of the execution of directives in response to; environment, nutrition levels, competition and availability of mating. Although sounding here like Robert Ardrey and his 'Territorial Imperative' !.

In terms of an anthropomorphic 'meaning map' of a basic human's own perceived biological identity, capacity and form, even reduced to descriptors of the most basic chemical levels of performance and in terms of its perceived social and environmental process, - the 'legs' are the carrier vehicle for its identity and its 'feet' as the obstacle engagement process in the act of its transit.

In rudimentary animal and allegedly basic human behaviour, the sexually differentiated area of either gender are the keys to successful social process, therefore, at a biological level the psychology of efficient access for each potential target can be deduced from the psychological keys in the colour and morphology of the choice of clothing.

The human waist, of either sex, if slim, promises social efficiency. The upper body, chest and 'shoulders' indicative of the strength of and or capacity of the social role of the biological being.

'By honoring and perpetuating the traditions of their ethnicity, men and women from

Serbia have used dancing as a tool for seduction and expression of love for the opposite sex.'

Ristić, N.; Mandarić, S.; Jocić, D.; Lazarević, D.

Facta Universitatis: Series Physical Education and Sport, 2013, Vol.11 No.3 pp.255-265 ref.21

The basic human social interface, appendages or 'arms' enable it to operate within its social context, and its digits 'fingers' may or may not deliver high precision efficiency at any social process according to levels of social entrainment and expectation.

The lower head - or 'jaw' is indicative of social elocution and efficiency, where the male may consume by dictate any social obstacle to release its energy using a process and 'feeding behaviour' called 'language'.

'Rap originated as word gamesmanship as word-up competition became increasingly popular. This can be seen as a positive trend toward vocabulary expansion but it seems that the pre-adolescent is always looking for a way to one-up their predecessors.'

Four-letter were incorporated for shock value and it has become a trend that minimized vocabulary expansion in favor of more explicit negative images of adult behaviors associated with sex and violence.'

Nelson Harrison in:

<http://www.techyville.com/2012/11/social-media/psychologist-says-hip-hop-beatsviolent-lyrics-hypnotize-kids-and-changes-their-behavior/>

High efficiency of this process can be typified by a *square* or cubical effect in the jaw of the male: - '*suggestive of manliness and strength*', Collins English Dictionary. Copyright © Harper Collins Publishers.

And, in the female, the reverse is true,

Traits traditionally cited as feminine include gentleness, empathy, and sensitivity, Worell, Judith,

'Encyclopedia of women and gender: sex similarities and differences and the impact of society on gender', Volume 1 Elsevier, 2001, ISBN 0-12-227246-3, ISBN 978-0-12-227246-2

Where femininity and compatibility are required for efficient bonding (and nesting !!!).

The presence or absence of Human hair on the head of either male or female may signify strength or weakness or ability in differing social contexts, where hair can represent well-tended social and nutritional abundance in some situations or an encumbrance in others that are more competitive.

It has been found that choice of colour does indicate either depression or excitation, and that subjective psychological states can be objectively measured by using test colours [Lüscher, M] and that the relative tightness and constriction of any clothing and wrapping may allude to psychological tensions within social situations and peer

group competition.

Tight leggings in the male may emphasise phenotypic and psychological mobility and strength, e.g. natural or sexual selection, all of this sort of cave-man ideology though is usually seen in such publications as:

The Naked Ape: A Zoologist's Study of the Human Animal, is a 1967 book by zoologist and ethologist Desmond Morris (ISBN 0-385-33430-3)

In a female/feminine personae, tight wrapping and restrictions suggest encumbrance almost like '*slowly moving gift wrapping*' that could be interpreted in terms of; biological viability, peer group and psychological viability, social viability or indeed social invariability depending on the available liberty within financial and class structures.

Human Female psychology reduced to - 'Ape studies' by e.g. 1932 Zuckerman '*The Social Life of Monkeys and Apes*' - may be read in terms of its accessibility to a process of breeding and social mobility as demonstrated by clothing styles and other nest-building acquisitions and aspirations derived during its youthful socialisation period.

Where I am going with this is that if social engineering can polarise humanity around basic biological archetypes and adrenal cortex responses, using the media for example – then it is entirely possible to model and map out the lives of humankind on that basis.

20th Century female fashion often tended to portray the female as vulnerable objects. Intentions and marketing within footwear tended to raise female executive intentions to allegedly inefficient heights off the ground using raised 'heels' under the feet for example. That of course could also be a ploy etc

In terms of social industry and the anthropological biologic however, the executive intentions indicative of pheromonic oestrus and the signalling of intention to breed for the good of the nest could be used in other more complex social strategies that facilitated non-reproductive evolution.

In having a lower centre of gravity and greater stability, and perhaps less decorative and more durable displays therefore, Male footwear tends to facilitate more immediate commitments to both personal rigour and change. Its almost as if the nonsense of Morris' 'Naked Ape' and the story of the 'efficient hunter' are coming home to roost !!

1.32 Social Containers and Stress. A TRE Model.

Human infrastructure, integrity etc can be classified by the infrastructure vehicles of; factory, home and car etc with this Tripartite Proposition

Macro - 1. industrial	[high packet energy]	[low packet energy]
Meso - 2. social	[nesting deployed]	[nesting undeployed]
Micro - 3. individual	[fruition deployed]	[fruition undeployed]

This Tripartite Proposition of the 'caste system' will aid the classification of the 'human nest' and its social context. Again it will show eight possible pictures of 'nest integrity' and viability. It can incorporate social potential and expectations, by analysis of e.g. 1. colour of artefacts, [social attitude; where high frequency colours represent positive and low frequency colours represent negative [Lüscher, M]]. and e.g. 2. economic efficiency: - the degree that personal investment can be efficiently marshalled and directed (e.g. credit) whilst there is ongoing environmental change (e.g. maintenance budget) within the socio-economic environment of; factory, home.

The structures of; factory, home and car may also have a low or high centre of gravity, conveying relative degrees of capacity to perform actual; practical or impractical social applications.

The amount of available space within; factory, home or car is indicative of life's capacity for adaptation and the power of its financial turnover. This financial engine will reflect on its capacity for crisis management and management of any crisis to its integrity.

In times of social stress and disintegrity, distortion may become visibly incorporated into both local and regional lifestyles during identifiable patterns of industrial change.

Distortions may be visibly emerged within the artefacts, tools and information

processes of; lifestyle i.e. patterns of eating and dressing, working and the viability of artefact manufacture.

Distortion also may enter into agreements within cultural and recreational activities, relationships between parents and children and also generally impact on personal and peer group life-chances. E.g. patterns of infant mortality, physical and mental illness, childlessness, marital conflict, separation and divorce.

People feeling negatively influenced by social and economic distortion may take unsuccessful approaches and strategies to future social roles, artefact and information manufacture, and to patterns of explorative research. This could indicate personal and environmental dysfunction with nihilistic implications.

Seeing such social systems within a nested ecosystem of social relativity between all magnitudes and kinds of containers, in all social strata and between nested sets of rules and agreements that regulated the production of personal and social; artefacts, information and behaviour – a description of a meta-language of social function may be arrived at for the purpose of modelling.

This is based on the simple idea that each and every unit or system within a system can be represented as a tripartite proposition and as a container with some story about its integrity or viability - or lack of it.

The Biological and Social Context for meta-language [Ga]

Taking the biological imperative to social extremes is only one strategy for modelling Human behaviour. Although somewhat condescending and arrogant in its approach to the activities of the human spirits that fought belligerent attitudes and warmongering in the defence of nation states, it does however, produce an organic base-line or bottom line upon which the most obvious social contradictions produced by humanity can be demonstrated.

In the light of authors on Behaviourism such as; Lorenz K, Ardrey R and Storr A, who researched group behaviour and territorial aggression in Simians – the basic assumption is that hormones drive the fitness that drives the behaviour. Biological success also depends intimately on the success of the environment in its capacity to support.

On the face of it though, hormonal aggression in Humanity can be very complex. Aggression is not an easy concept to define, although some cases are clear-cut. Single individuals or groups of people may; kill or injure other individuals, force others to do something against their will, or overtly thwart the expressed desire of other persons.

[e.g. by denial of service, social exclusion from social facility, perjury etc]. *'Obviously threatening another person with death, injury, or violence is also aggressive [e.g. stones, knives, dangerous psychological driving]. Perhaps simply the conscious desire or intent to injure, kill, coerce, thwart, or threaten other human beings, even if these things are not actually carried out, could be considered aggressive in that psychological driving and loading by such dangerous stress can cause a physical deterioration in health – both physical and mental such that the victim may suffer loss of life, property or social status.*

On a more subtle level ,e.g. ridicule, sarcasm, hostile laughter, revving vehicles, and attempts to embarrass or demean others almost certainly have an aggressive component.

What all these phenomena have in common is the intended or actual imposition of a person or group's wishes on other people against their will.

This aggressive and uncaring attitude towards being appears to exhibit 'cohort' group-effects at times.

Paradoxically, warfare is closely tied to the co-operative attributes of group members. The same traits that promote within-group harmony may be and often are employed to attack and destroy other groups'.

[Alcock J, 'Animal behaviour - an evolutionary approach' pub. Sinauer, 1976, ISBN 0-87893-022-1]

It is because of Stress, social, physical and psychological and the behaviour of society and the environment that cause it, that mankind is very prone to being reduced down to some basic 'stimuli'

For example our model of home, factory, relationships, and personae as a container of varying integrity and disintegrity can be further developed by looking at the causes of and reactions to stress. Stress puts all sorts of containers under pressure, from factories to people to nation states, to environmental stress.

Stress is a killer - everybody knows it - and what causes stress - but the hectic and destructive world we all live in. With help from notes derived at [www.bio.utk.edu] a short overview.

Humour is a positive response to the world - the capacity to laugh. Scientist have found that laughter and amusement have many life saving physiological effects, caused by the laughter centre in the human brain. Laughter is a means to health. 'Laughter has proven beneficial effects on various other aspects of biochemistry and physiology. It has been shown to lead to reductions in stress hormones such as cortisol and epinephrine'.

"*Why Laughter May Be the Best Pain Killer*". Scientific American. 2011.

In classical psychology - laughter is a Stress Releasing Mechanism.

"Our military right now is stressed. There are a lot of things going on and we have lots of different competing missions. Every way and anyway that we can deal with combating that stress improves our readiness," Johnston said. "Laughter is a nice easy way to do that."

Navy Capt. Scott L. Johnston, interim director of the San Diego, Calif.-based Naval Center for Combat & Operational Stress Control (NCCOSC)

Chaos in our lives is patently unhealthy.

When a stress victim's resources or competence to cope in a particular way ("adaptive scope") is exceeded, varying levels of response are recruited. This can evoke a cascade of responses in which one response, if insufficient to cope by itself, can trigger additional mechanisms, possibly ramifying throughout the organism.

[Tears or Laughter]

Many if not all of these responses have important consequences for behaviour.

Real or perceived changes in the environment can evoke adaptive behavioural responses that are co-ordinated by the neural and endocrine mechanisms of the stress response. At that juncture we either get stressed and cry - or we invoke laughter, the endocrinology of which has it that it soothes the brain's cortex.

Tears and laughter in human social context are a more sophisticated development in the 'Fight or Flight' response to confrontation in the animal world.'

This response to stress has been called Eustress as opposed to Distress. This is positive coping behaviour that releases us from the angst of biology and puts us in a relatively transcendental state.' Eustress means beneficial stress—either psychological, physical, or biochemical/radiological. The term was coined by endocrinologist Hans Selye.

Kurt Lewin, one of the co-founders of the prestigious social engineering think-tank the Tavistock Institute appears to have been thinking on similar lines with his field theory in psychology and the mathematical modelling of human relations. Here he writes about insecurity.

The deregulation of social commitments combined with the high cost of living within western society has led to the construction of more tenuous relationships, less reproductive commitment and a massive drop in the birth rate.

The removal of social stereotypes and social and gender roles that constrained life-chances to a cycle of reproduction in the western world, have created new levels of individualism within men and women. New levels of insecurity within primarily reproductively driven women at the higher end of oestrogen production levels caused by higher and higher degrees of social sharpening in both male and female peer and social cultures interrupt the psychology of nurture and home-making.
[Lewin K].

Many aspects of human social behaviour look and sound programmable e.g. stress avoidance and reward seeking behaviour, etc and

We are shortly going to look at the 'electricity' of human interaction and discover that power laws, like the power law of inverse square fields etc have been applied to human behaviour by both Kurt Lewin and Wolfgang Kohler.

Gerald Edelman, (Bright Air, Brilliant Fire) however, concluded that consciousness e.g. predicated upon such aspects of; reward-seeking and avoidance behaviour are virtually automatic in matter, and that such is passing itself off as intelligent behaviour in the world of animals.

This because of innate physical transactions. It may be therefore that a computer does not need anthropomorphic humanity to have human consciousness given it could be adequately made to perceive any context.

Having said that, Edelman is obviously unaware of Youtube and its ability to show us hours and hours of footage taken of animals exhibiting loving and altruistic behaviour. E.g. Dolphins saving people from sharks or drowning.

Durkheim provides a social model called anomie theory that could explain the

generic reaction to the social distress within the post industrial economy in the context of a failing social umbrella and the growing needs of social change and re-commitment.

So far, then, in our theory of nested and inter-related containers under stress, from; the individual human, their relationships, their immediate domestic and social environment, the infrastructure of their livelihood, their economy and environment, we can arrive at a broad picture of how a disintegrating society – a large scale umbrella, theoretically, can have a disempowering effect on individuals.

'Without any clear reasons to socially co-operate amongst social and industrial and cultural deregulation during this period of industrial uncertainty and sweeping social changes, and where a regulated approach to survival is seen not to persist a sense of social direction can be slowed or negated.

According to Durkheim, human wants are endlessly expandable There is no 'natural' limit to what people might crave and, therefore, to what might satisfy them. What then, keeps 'them' from being constantly dissatisfied ? The norms that tell us how high to aim. Social rules, not immediate biology, define what each social class is entitled to. People regulate their wants accordingly, and this creates the possibility of being satisfied. But a period of fast-growing prosperity or depression upsets the usual definitions of the goals and groups that a person may aspire to. There is no limit on aspirations, and thus nothing produces satisfaction. Durkheim felt that the desire to live is weakened under these conditions'

DURKHEIM E, 'Suicide' . Translated by George Simpson, pub. New York Free Press, 1951.

Anomie theory views deviance primarily as the individual's way of adapting to a situation in which no means are available for achieving the prescribed goals. Therefore he or she must innovate by inventing illegitimate means instead. These people cannot organise their behaviour rationally in relation to a predictable system of rewards and punishments.

In Adler's version of 'Fictional Finalism', however, where dissatisfied people could imagine themselves as being sociable, educated and worth employing for some good reason even if temporal circumstances dictate otherwise there is sufficient reason to tolerate systemic stress if people could be taught or shown how to do so. Fictional Finalism: *'The belief that human beings are more strongly motivated by the goals and ideals that they create for themselves and more influenced by future possibilities, than by past events such as childhood experiences'*
Psychology Dictionary Online

1.33 AN OUTLINE TRE BEHAVIOURISM.

INTRODUCTION.

1.331 - [TRE] FIELD THEORY OF ASSOCIATIONISM.

1.332 - PROCESS OF SOCIAL DEFAULT.

1.333 - AN AUGMENTATION OF THE BEHAVIOURIST ASSUMPTION. (SIMPLICITY TO COMPLEXITY.)

Introduction.

This section of 'numbers and agreements' will present an objectivist and mechanistic view of behaviour that is entirely derivable by chemical responses.

The appearance of 'soul-less' chemical descriptions for the transactions and activity of Being, however, in no way precludes 'Divinity' as a legitimate discourse. The reality appears to be in this case, not: 'if consciousness arises in matter', but how much of soul consciousness is being withheld from material discourse. This issue will be addressed in a later section in terms of Ethnographic distortion in artefacts and information, and in the section on the Soul and continuum.

PART 1.331 [TRE] ASSOCIATIONISM

Associations arise in the biology of memory.

This is an assumption open to challenge.

According to British biochemist Donald R. Forsdyke in a new paper in Biological Theory, the existence of people who seem to be missing most of their brain tissue calls into question some of the "cherished assumptions" of neuroscience.

Forsdyke discusses the disease called hydrocephalus ('water on the brain'). Some people who suffer from this condition as children are cured thanks to prompt treatment. In some cases, these post-hydrocephalics turn out to have huge swathes of their brain tissue missing, replaced by fluid. Even more remarkably, in some cases, these people have normal intelligence and display no obvious symptoms, despite their brains being mostly water.

This phenomenon was first noted by a pediatrician called John Lorber. His work was famously discussed in Science in 1980 by Lewin in an article called "Is Your Brain Really Necessary?".

There have been a number of other more recently published cases.

Forsdyke argues that such cases pose a problem for mainstream neuroscience. If a post-hydrocephalic brain can store the same amount of information as a normal brain, he says, then "brain size does not scale with information quantity", therefore, "it would seem timely to look anew at possible ways our brains might store their information."

Whereas the orthodox (materialist) view is that "information relating to long-term memory is held within the brain in some chemical or physical form", Forsdyke says that we need to consider the possibility that memory is stored "in some extremely

minute, subatomic, form, as yet unknown to biochemists and physiologists” or, maybe, that it is stored “outside the body—extracorporeal!”

<http://blogs.discovermagazine.com/neuroskeptic/2015/07/26/is-your-brain-really-necessary-revisited/>

Aristotle in ancient Greece, proposes that memory arises out of a tripartite process. Aristotle, in his Essay on memory proposed three relations between observed elements that led to the formation of associations.

1. similarity
2. contrast
3. contiguity

.
to which I would add the context of 'biological performance'
e.g. diet, age, damage.

The excitation strength of the stimulus, its recency and frequency will drive the formation of new associations and re-inforce or contradict older associations causing associative distortion or 'interference'.

Vividness a strong sense of unique identity within the congruence of a given context with time may persist or diminish with time.

The recency and intensity of excitation if persistently applied and re-enforced would forge associative chains in context. These would perhaps facilitate new learning strategies in the future.

Contrast is another means by which one learns associations, this may be perceived as 'incongruence' in any social context. The levels of intensity of which contend in inverse proportion with that which is Similar.

Perceptions therefore when confronted by an unusual learning situation that require adaptation must identify both contextual congruence, through the similarity of previous learning and experience and that which is truly incongruent.

By observing and measuring the transactions within the new congruence and incongruence, one may isolate that which is unique and unfamiliar by excluding the new versions of 'similar'. Re-establishing and chaining through backward association, previous similarities to the current similarity, behavioural 'levelling' or acclimatisation can occur.

A new Associative Field Theory.

Using the tripartite essentialist system [TRE] which is an objectivist psychology driven by the basic rules of physical and chemical interactions, emergence and chaos theory, field theory etc, it becomes possible to construct a functional picture of

associationism that uses simple rules to account for complex processes.

The [TRE]; personality, memory and cognition may therefore comprise of three distinct zones plus a learning modality or postponement created by biological chaos (X)

In the context of the presence or absence of X. atemporal trauma-based disassociation and general biological health, the following is a tripartite proposition for memory.

chronologically remote associations.
chronologically 'mediate' or middle distance memory.
current and contextually emergent associative facilitation.

This system of association can be therefore meaningfully modelled using the Language [A], where its 27 possible events at time1 become a complete and limited picture of [1-729] associational states of integrity or disintegrity in any given context at time2.

Trauma, here, does not relinquish the right of the individual to re-educate for better health and success as it may be viewed as a temporal postponement of life chances and goals.

If the traumatised individuals goals are irretrievable due to contextual circumstances however, then other mediate associations that could be both productive and relatively undamaged could be identified.

A strategy for healing a trauma victim may therefore be to reach back in associative time for a mediate associative and creative strategy that was underused, misused or previously underdeployed or undeployed and re-stream the associative consciousness towards a desirable goal in a new social context.

[TRE] Psychology has the following semantic structure in any Context C.

MACRO Remote Association
MESO Mediate Association
MICRO Emergent Associative Facilitation in Context.

A sense of Biological comfort in any given social or peer group zone is denoted as 'Levelling' in both Lewin's Field theory in psychology and in Köhler's.

Lewin noted that there was observable biochemical credence to the distribution patterns of individuals and social groups.

Wolfgang Köhler, a contemporary, posited that physical biology is not independent of electromagnetic lines of force and that the psychological process can be driven by and even 'dependent' on the electromagnetic spectrum. E.g. physiological and behavioural responses to the Moon etc.

The equilibrium between individual parameters and individual strengths is in continual interaction and challenge with the physical world, its parameters, stressors and excitators.

[e.g. forward and backward chaining, inhibitors etc]

Associative Field Theory, therefore, presents a unifying behaviourist model driven entirely by physical objectivism i.e. non-arbitrary physical (Universal) laws e.g. power law field theory. I.e. Lewin.(1952)

A [TRE] Psychological World Model for individual learning and a socially successful individual would have the creative output of the individual facilitated in the context of a platform of social interaction.

i.e.

MACRO CONTEXT AND INDIVIDUAL
MESO BIOLOGICAL COMFORT ZONE
MICRO CONTEXT AND WORLD

In this situation, the individual is comfortable with the world and can relate to and operate within and transfer values, information and assets to the world. This is called 'levelling' by Lewin [1952].

In contrast, where the transference gradient runs against the individual because of unfamiliar social or environmental placement or inappropriate learning strategies in either past and, or present - the individual may become relatively 'uncomfortable' and disassociate from the learning environment. This is called 'sharpening' by Lewin [1952].

i.e.

MACRO CONTEXT AND WORLD
MESO BIOLOGICALLY INTOLERABLE PERSONAL SPACE
MICRO CONTEXT AND INDIVIDUAL

The objectivism of [TRE] when added to previous research into the Philosophy and Empiricism of Mind which also includes the much more relevant massive computational research of the late 20th century can solve the major paradoxes of psychological doctrine.

None of the ideas from a [TRE] based Psychology would have been possible without the freedom of global information and publication facilitated by a very highly technological Society.

Such information from which to draw comparison by analysis was not available to; Kant, Hume etc, and neither was such a level of scientific empiricism available to Newton or Darwin, or indeed Einstein.

Although the traditional British 19th Century empiricist philosophers (Locke, Berkley, Hume, and Mills and Bentham in the 20th Century etc.) wrote copiously about their feelings about good social performance, it was left to the scientific approach beginning with Ebbinghaus in 1885, and Pavlov in 1904, and then Thorndike's work on association called 'connectionism' c.a. 1940's to become the rational foundation upon which Watson c.a. 1940's built behaviourism.

This took associationism out of the realm of 'sensations' and 'ideas' into the methodology of empiricism with its 'stimulii' and 'responses'. These could be objectively measured as behavioural responses.

In recent years writes Reber, 1985, associationism has *'lost some of its explanatory*

power in fields such as; perception, cognition, psycholinguistics, developmental psychology and the like mostly because of the compelling feeling that most cognitive processes are too complex to yield to an analysis based simply on associative connections.'

Edelman in his research into biological chaos and complexity sought to bridge the gap in reality that the Cognitive Sciences had subsequently created in the Philosophy of Mind, by using a computer sciences approach to psychology and intelligence. Neurobiological and linguistic research in the latter half of the 20th Century assumed that *'people behave according to knowledge made up of symbolic mental representations. Cognition consists of the manipulation of these symbols. ... The efficacy of such processes resides in the possibility of interpreting items as symbols in an abstract and well-defined way, according to a set of unequivocal rules.'* p13.

Edelman's issue was that 'the mind cannot proceed 'liberally' - that is (Cognitivism) was disregarding a large body of evidence that undermines the view that the brain is a kind of computer. (Cognitivism), ignores evidence showing that the way in which the categorisation of objects and events occurs in animals does not at all resemble logic or computation.'

Perhaps though, Edelman without a TRE perspective could not identify the 'common sense' threeness of it all.

Edelman as a scientist rejects the inherent irrationality within classic views of essentialism no doubt because of their allegedly arbitrary nature and performance within the Universality of domains, objects and labels.

Tripartite Essentialism, however is an Objectivist Essentialism that predicates upon the sufficiency and universality of simple physical laws of transaction to describe both the behaviour of the world and the behaviour of the mind.

In Chapter 3 of his book called 'Bright Air, Brilliant Fire' pub. Penguin 1994, ISBN 0-14-017244-0, Edelman quotes James Clerk Maxwell

'The only laws of matter are those which our minds must fabricate, and the only laws of mind are fabricated for it by matter.'

Edelman found that although the mind was driven by biology, it also was confronted simultaneously with the Turing problem that halted the computational models of the Cognitivist school of Artificial Intelligence.

i.e. an infinity of labels and objects confounds rational deductive thought.

TRE would hold that there is an innate relationship of threeness within matter and mind, contrary to Edelman's belief, and also take the view that our streets are not full of confused people who cannot make mundane or even relatively sophisticated 'common sense' decisions. That though would be the state of play with current understandings of synthetic intelligence without a solution to Turing's Halting problem.

Tripartite Essentialism overcomes the Turing problem both in computational logic and in behaviourism as it is solely dependent on a basic and universal transaction

model of; some A to some B through some common C (and or in relation to some other intervening modality D), and also power law relationships found in nature..

It can also be argued that Tripartite Reasoning is innate to the mind of mankind in the same way that it is innate to the logic of matter.

These Tripartite and power law material relationships are found variously and universally in Nature as Maxwell had predicted as; Fajan's Rules in Chemistry, Osmosis in Biology, Ohm's Law in electricity, Field Theory in Psychology by both Köhler and Lewin.

The brain as a [TRE] Essentialist computer answering to the logic of function and context becomes a more viable proposition than simply discarding the computer model as Edelman was led to do.

In modern research into a behavioural programming system called Neuro Linguistic Programming (NLP), remote associations formed during the years of youth may have produced various types of sensory-associated psychology, linguistics and behaviour that manifest in their current social vocabulary.

- e.g. 1 'tactile' ('I feel that')
- e.g. 2 'visual' ('I see that
- e.g. 3 'auditory' ('I hear that ...') etc.

Here is the assertion from social data that the being is led to associate with their strongest senses and that these associations take logical computational structures. Subsequent and arbitrary biological deterioration of the senses during some intervening years between youth and the present may have caused a requirement for a life-strategy for sensory fulfilment to change.

For example, the person today may realistically derive social success from being an 'auditory' person.

However, biological trauma or deterioration in the intervening years between youth and the present may have caused the retention of a redundant associative vocabulary that depresses the individuals expectations. More recent strategies to re-implement youthful sensory expectations may have caused inappropriate social returns and therefore a feeling of personal (and biological) insufficiency.

The biology and gerontology of the body are seen to direct and drive the psychology of behaviour.

The older personality may then have a crisis of and expression and social recourse, where modes of expression are now felt to be inadequate.

Any number of biological and systemic catastrophes and sensory injuries may render remote memories and associative driving dysfunctional.

In NLP, therefore, if a person says that ('I see that ..'), they may not immediately be classified as a 'visual' personality if they are wearing glasses illustrating massive optical compensation. It may be, however, that the optical trauma created an associative inhibition and that no new learning strategy has since evolved because of this.

[TRE] Field Theory in Associology, which incorporates Objectivist and Behaviourist

approaches may have recourse to a more complicated and context-sensitive version of NLP. It is the [TRE] Psychology strategy, however, that enables a recursion-free, context-sensitive, objective and programmable Philosophy of Mind to supersede the relatively uninformed dilemmas of the 20th Century.

There follows an outline of a [TRE] Psychology social strategy that models an empirical approach to social and psychological failure or rules default in the context of the tools of psychology being utilised as a vehicle facilitating social recovery.

A state of social integrity is described by Lewin K, in his 'Field Theory in Psychology' [1952] as that in which an individual experiences the nurturing, rational communality of 'levelling'. In becoming disassociated, the individual is perceived to be irrational, selfish and 'sharp'.

As far as the individual is concerned there are a few issues that would need clearing up.

Unless otherwise politicised, the needs of the many (Demos) are greater than the needs of the one (Phobos). Individual recovery from Social aberrance must be weighed against the self-esteem of the individual such that the bias, perceptions and relevance of both the personal and social incongruence experienced can be later redressed legally or later mediated by more positive associationism.

The scepticism of RC Buck on the '*Logic of general behaviour systems theory*' although dismissive of any central unifying principle in physics driving simplicity and complexity does present the intellectual loading problem presented to a disorientated individual in a confusing breakdown situation very well.

He criticises ..'Every system has subsystems' and taking this together with 'every system has its environment' we are indeed confronted with limitless vistas of systems. One is unable to think of anything, or of any combination of things, which could not be regarded as a system. And, of course, a concept that applies to everything is logically empty.' Applying Buck's quotations to a badly behaving student worker e.g. at a badly behaving government fish farm and the dilemmas and arbitrary contradictions to social responsibilities that the confused people must produce .. The beset student may attempt to grasp their predicament.

'What would it be like to disprove the statement that every system had subsystems? If general systems theory can answer this question, the answer should certainly be provided. For such an answer would have to include a criterion for recognising something which is not a system; and possession of such a criterion would help immeasurably in clarifying the central concept of a system...'

Buck though in having problems being unable to falsify that $1+1 = 2$, or that because of such mathematics, that Hydrogen has three isotopes, fails to grasp that there is an ontology of threeness generally underpinning 'everything'.

'...An important part of the significance of any concept is given by its contrast, by knowing the kinds of things to which it does not apply. And the trouble with the concept of system here, as I see it, is that this contrast is absent. here, rather, the situation seems to be that statements such as 'I am a system', 'the membership

committee is a system', 'the economy of the United States is a system', 'the species salmon, is a system' - that these statements, in the language of general systems theory, couldn't even be false.'

Buck's scepticism is used here to illustrate the disintegrity and subsequent recourse to reduced coping strategies and socialisation facing an individual identity under biological stress. In this example an untrained from a different class background is confronted with high levels of social expectation and high levels of both personal and social failure at a bad time in (his) life. The fish worker insufficiently educated for a government lab job, where the lab itself was also cutting corners in staff training etc

With no recourse to 'Contrast', the incongruence of such a social situation will fail such an identity and social sharpening [Lewin] will ensue.

Personal and Social failures can arise out of dis-integrity.

A. Is Society Incredible because;

- (i) there is social dysfunction because of parental history and personal and social education and social positioning by parents.
- (ii) because of the lack of class education and peer group support and social opportunity and resources.
- (iii) unimaginable factors from outwith (his) remit have imposed.
e.g. socio-economic success or failure e.g. 'anomie theory'
(Durkheim E)

B. Is Personal failure, if any, caused by;

- (i) insufficient education.
- (ii) insufficient biological capacity to attenuate prevalent social stressors and to overcome inhibitory associations.
- (iii) insufficient use of social structures, class and peer groups in a personal context.

C. Is Social failure, if any, due to;

- (i) lack of educational provision
- (ii) lack of a discernible pathway to personal evolution and growth in a fractured class ontology e.g. socially endorsed negative and addictive lifestyle.
- (iii) a lack of patronage for differences amongst individuals such that every aspect of society solicited appears indifferent to any unique contribution that would emerge from such a life.

If society is seen to fail, then it is evident that a lack of social imagination exists that cannot facilitate the socially diverse. A lack of coherence in the social structures such that there is impoverished communality and sharpening between peer and class groups, then this society in possession of no regard for life and self-esteem should not be patronised.

1.332. AN OUTLINE OF AUGMENTED BEHAVIOURISM USING COMPLEXITY MODELS DRIVEN BY THE SIMPLICITY OF FAJAN'S RULES.

- The Physical Theory of Objectivism or biochemical Existentialism or Behaviourism.
- Augmentation of the Behaviourist assumption.
- New Neuroscience Theory partially enabled by the research of Gerald Edelman.
- Reprioritizing the research of Kurt Lewin and Wolfgang Köhler.

The Behaviourist Assumption - an objectivist, physical theory.

Such previously discussed redundant societies, that can offer no life or beneficial transaction, can be perceived to follow the basic instincts of pain and pleasure derived from the biology of animal behaviour. These ideas were to be pursued in the 19th Century by researcher and philosopher Thomas Carlyle in his essays on Chartism. [Sartor Resartus, 1865]

Carlyle was perplexed by the insufficiency of moral and social explanation for ongoing disintegrative and nihilistic behaviour arising from previously facilitated individuals, usually of lower class.

The doctrine that embodied animal instincts of pain and pleasure and aversion as necessary social tools for the growth, communication and control of the un-intelligent arose first with Bentham, then became more refined by John Stuart Mill c.1843 CE in the doctrine of 'Utilitarianism'.

The basic biochemical instincts of social life as driven by the endocrine system, the adrenal cortex and the gonadotropins, reduced human society to the level of Simian constructs in; e.g. aggression, co-operative groupings, grooming and play.

In terms, even of Adam Smith's Enquiry into the Wealth of Nations [1776], each social transaction will carry the most benefit to the individual at the least cost to the individual.

'Members of bands of humans and social carnivores co-operate in hunting and protecting captured game and share, more or less amiably, the large quantities of food at kill. Co-operative interactions also play a role in the defense of the group against outside threats of various sorts. Importantly, co-operation extends only to members of one's own tightly knit social unit; strangers are generally excluded, attacked, driven-off, or even killed.

Competitor carnivores of other species are treated hostilely as well. These attributes contribute to the defense of an economic base that will support a clan of large voracious predators.'

[Kruuk, H 1972, Mech, LD, 1970, Schaller GB 1972, in 'Animal Behaviour - an evolutionary approach' Alcock J pub. Sinauer Associates 1975 ISBN 0-87893-022-1].

Concludes Alcock .. *' Thus the special selection pressures associated with the niches of hunters have resulted in the evolution of behavioural similarities between unrelated animals (a primate and four carnivores) and substantial divergence between related species (humans and other primates, which are more purely herbivorous). 'Cultural pressures can suppress or exaggerate sex-linked behaviour as well as act as a selective force on populations .. but the key point is .. 'that the evolution of human reproductive and sexual behaviour owes a great deal to the*

unique ecological pressures operating on humans and rather little to our primate ancestry. The special factors associated with (human) hunting and gathering activity favoured stable pair bonding between mates. (for the facilitation of tool making intelligence in the young.) Reproduction is intimately linked with hunting behaviour and a division of labour between the sexes, as well as with the evolution of intelligence and increased brain size. All these factors have affected the nature of human courtship and copulation, which have been heavily modified (in humans) because they not only serve to produce offspring but contribute to pair formation and the prolonged child care suitable for the helpless big-brained progeny of a hunter-gatherer.'

Alcock's behaviourism was essentially attempting to incorporate an additional gestation period into the human-animal lifecycle - a gestation period for intelligent capacity and species evolution through toolmaking.

Xenophon (c.428-c.354 BC who was a 'Greek' soldier and man of letters, writes in his Memorabilia, while purporting to provide an account of the life and teachings of the philosopher Socrates, reflects an aristocratic ideal of relations between the sexes ...

'plainly we look for wives who will produce the best children for us, and marry them to raise a family. The husband supports the wife who is to share in the production of his family, and provides in advance whatever he thinks the expected children will find useful for life, on as generous a scale as possible. The wife conceives and bears her burden. She suffers pains and endangers her life; she gives away the food that sustains her. She goes through a period of labour, gives birth and brings up the child with care.

She has had no blessing in advance. The baby does not know its helper, and cannot convey its needs. She has to guess what is good for it and will satisfy it, and tries to provide these to the full. She cares for the baby night and day laboriously for a long period, with no expectation of reward.'

[Xenophon, Memorabilia 2.2.4-5]

In John Ferguson and Kitty Chisholm (eds) (1978) Political and Social Life in the Great Age of Athens, London, Open University p.147.

The step up from the simian research of Robert Ardrey, Anthony Storr and Konrad Lorenz suggested by Alcock is that as well as having a 'Territorial Imperative' fuelled by instinctual aggression and reproductive need, there is an imperative for the invention of tools that will address and solve and model any emergent environmental problem.

These tools or artefacts in [TRE] Psychology are both objects and information that are intended to solve or represent personal or social difficulty arising out of environmental and social problems. [ref. Chant C and Goodman C, 'Pre-industrial Cities and Technology', 1999 pub. Routledge, Open University.] also, in Chant and Goodman, 1999, V. G Childe's 'Urban Revolution' was powered by an increase in tools, social efficiency and organised and informed settlements.

Evolutionary Biology produced politicians and their tools of policy. The politician Demosthenes (384-322 BC) was 'the greatest Athenian orator' of the ostentatious

Sophist and elite schools of fourth century Athens. He suggested in pursuit of social efficiency .. *'If an alien man cohabits with a female citizen in any way whatsoever, anyone who wishes and has the right shall indict him before the Thesmothetae. If he is convicted, he and his property shall be sold, and one third given to the successful prosecutor ..'*

Roman Senators during the Republican era (510-27 BC) had such scope of finance and personal power to both organise and undermine massive civic works such as the aqueducts. [Chant C, Goodman D, 1999, 'Pre-industrial Cities and Technology']

The regulation of social pain and pleasure is therefore an ancient pursuit on Earth. Nevertheless such instincts to pain and pleasure were written into the history of psychology with recurring re-enforcement, as both intellectual and elite, first by Bentham and then by John Stuart Mill in the doctrine of Utilitarianism. [c.1900's]

The need for a good imperative to social and collective tool making has to surpass the simplistic behaviourist model. There, in states of 'levelling' as described by Lewin, the Human Being has recourse to exploration, research and development. In times of biological 'fortification', surplus resources and the re-enforcements created by successful, personal, social and reproductive successful activity drive evolutionary activity in society.

Bertalanffy LV takes this activity away from the arbitrary by use of a general systems approach. In his general Systems Theory, p220, he writes *'in contrast to physical forces like gravity or electricity, the phenomena of life are found only in individual entities called organisms. Any organism is a system, that is, a dynamic order of parts and processes standing in mutual interaction* (Bertalanffy, 1949a, p,11).

Similarly, psychological phenomena are found only in individualized entities which in man are called personalities. 'Whatever else personality may be, it has the property of a system' (G. Allport, 19612, p. 109). 'Even without 'external stimuli', the organism is not a passive but an intrinsically active system.

.. recent research shows with increasing clarity that autonomous activity of the nervous system, resting in the system itself, is to be considered primary. In evolution and development, reactive mechanisms appear to be super-imposed upon primitive, rhythmic-locomotor activities. The stimulus (i.e., a change in external conditions) does not cause a process in an otherwise inert system; it only modifies processes in an autonomously active system' (Bertalanffy, 1937, pp.133ff.; also 1960).

'The living organism maintains a disequilibrium called the steady state of an open system and thus is able to dispense existing potentials or 'tensions' in spontaneous activity or in response to releasing stimuli; it even advances towards higher order and organization.'

'The robot (animal behaviourist) model, only partly covers animal behaviour and does not cover an essential portion of human behaviour at all. Autonomous activity is the most primitive form of behaviour (Von Bertalanffy, 1949a; Carmichael, 1954; Herrick, 1956; Von Holst, 1937; Schiller, 1957; H. Werner 1957a); it is found in brain function (Hebb, 1949) and in psychological processes. The discovery of activating

systems in the brain stem (Berlyne, 1960; Hebb, 1955; Magoun, 1958) has emphasized this fact in recent years. Natural behaviour (for man) encompasses innumerable activities beyond the Stimulus and Response scheme, from exploring, play, and rituals in animals (Schiller, 1957) to economic, intellectual, aesthetic, religious, and the like pursuits to self-realization and creativity in man. Even rats seem to 'look' for problems (Hebb, 1955), and the healthy child and adult are going far beyond the reduction of tensions or gratification of needs in innumerable activities that cannot be reduced to primary or secondary drives (G. Allport, 1961, p90)'.

For the purposes of TRE Behaviourist modelling of the mundane and animistic level of life – most behaviour and all transactions and intercourse arise in the world of the chemical and physical and operate to the physical dictates of some A to some B through some common C perhaps with an intercession of some modality D). This assertion by myself, does not preclude an animatic argument or a stance in Divinity that instantiates and then incorporates the Divine origins of TRE/Trinitarian consciousness.

My [TRE] stance is further substantiated by John Dewey's 'Instrumentalism' 'If we want to find continuity in nature, we must regard every event from the point of view of the function it performs. Dewey maintains that we can classify events in terms of the degrees of complexity exhibited in their behaviour. Dewey argues that the emergence of living beings in the course of natural events does not imply a breach of continuity. It only means 'that the physical things have acquired new properties, those of ability to produce a peculiar kind of interactive support of needs from surrounding media'. In his 'Logic' Dewey makes this idea of interaction central and traces the processes of reasoning to their existential socio-cultural bases. Thus he defines sensibility as 'the capacity' of living beings 'to preserve' their 'pattern of behaviour'. He describes 'feelings' which human beings have, not as something superadded to a physical thing, ab extra, but as 'a newly actualized quality acquired by events previously occurring on a physical level, when these events come into more extensive and delicate relationship of interaction.' [Sathaye S G, 'Instrumentalism - a methodological exposition of the philosophy of John Dewey' pub. 1972, Popular Prakashan, Bombay.]

Jewey, 1929, in the absence of massive computation would have found it difficult to empirically research the 'increasingly complex and intimate interactions amongst natural events' e.g. Chaos Theory of [Mandelbrot B , 1975, Fractals, IBM]

The basic underlying laws of [TRE] Relativity provide a formal framework to assert the 'a priori' status of continuity upon the physical theory and its biological and behavioural implications.

In humans and simians, the biochemical activity resulting from a combination of diet, good mating and genes is responsible for the behavioural impetus in; survival, adaptation and in the operation of dominance hierarchy. The best served adrenal glands and endocrine system produce the best aggressive behaviour, and in man, ultimately the best cognitive strategy for tool making and problem solving in e.g. defence of food stocks or the herd.

Behaviourism and its biochemical descriptions is sufficient to explain the need for social and species information transfers at all levels of systemic organisation and

environmental interactions in biology.

The biological robot is of course an unenlightened tragedy as millennia of passionate disputes on this Earth bear witness to.

The best served adrenal glands producing the best aggressive behaviour and territorial displays drive the hierarchy from the top down, creating; alpha, beta and gamma (recessive) attributes in individuals.

The larger anthropoid 'energy packets' donate structural integrity to the colony by driving the biochemical sustenance-intake strategies of the herd down a psychological transference gradient maintained by the gradation of the relatively biochemically strong down to the relatively biochemically weak.

This induces relatively great degrees of recognition of innate biological necessities within the group.

The law-like activity of 'relatively efficient biochemical packets' has been noted and described by Lewin [1952] as applicable to Human psychology and behaviour.

In humanity, the psychological precepts of self-recognition by 'cognitive impact' as noted by Lewin and Karsten although applicable, do not convey the true effects of the central priority within the human version of this transaction and the velocity as it can be felt at its most socially extreme and 'unsocial.'

i.e. the velocity of the dominant versus the recessive identity or challenger.

In humanity, full of complex information processes, and behavioural descriptions, one can often tell if some transactions are usual and if perhaps we have been very, very unlucky. This may incur a great sense of intelligent 'shame' or social redundancy if left arbitrarily unaddressed.

In the song called 'the Boxer' by Simon and Garfunkel, nowhere in the 20th Century has the feeling of social redundancy been better expressed, as the incessant brutality and velocity of the incongruent and the dominant, strikes a chord with the repressed and vulnerable. A young man in the 'company of strangers' running scared and running away from home as a youth, seeks out shelter from the dangerous heights of social violence amongst the 'poorer quarters where the ragged people go'. Finding that the New York city winters were bleeding him and that he was living a lie by assuming that his being was relevant to society, he eventually comes to terms with his identity. That he is separate by traumatic disassociation from society and he has nowhere to go.'

[Simon and Garfunkel's Greatest Hits, CBS, 1973. catalog. 69003]

According to Karsten in 'Psychische Sättigung, Psychol. Forsch. 1928(10) 142-154, 'the velocity with which an activity is satiated increases with the degree to which the activity is psychologically central (as against peripheral). Lewin states 'This proposition has the nature of a general law, e.g. a law should be accepted as valid only if it is not contradicted by data in any branch of psychology - in this sense, a law should always be general.

The combination of a number of forces acting at the same point at a given time is called the resultant force and drives the relationship between force of world and behaviour of self.

Whenever a force different from zero exists, there is either a 'locomotion' in the direction of that resultant force or a change in cognitive structure equivalent to this locomotion. The reverse holds: whenever a 'locomotion' proceeds or change of structure results, the resultant forces are measured to exist in that direction.

Wolfgang Köhler in addition to Lewin's biological behaviourism added that beings did

not exist independently of electromagnetic lines of force and were part of the same physical field that could allegedly be observed as spatial orientations within physically observable empirical biology.

Perceptions humanity have of time and matter are only partial and 'temporarily' flawed. e.g. Energy, matter, time, the cycles of the moon, the tides, the seasons as they manifest within diurnal rhythms of trees, plants and crop growth etc. tie our moods by association of past life events into chains of e.g. seasonal colour and light intensity to aid, or forget, the recall of past activities etc. Our biology comprised of 90% water, is immersed in the contextual electromagnetic spectrum of the world of biological water in the biomass, hydrosphere and oceans. This biomass is under the gravitational influence of the moon. Lyall Watson in his book called 'Supernature' pub. 1974, Coronet, ISBN 0-340-18834-0, documents overwhelming empirical evidence that establishes tidal trends and electromagnetism and the cycle of the moon as driving factors in animal behaviour. Analogies of resonance and 'feeling like such and such', empathy and empathising, and 'striking a chord' and 'ringing a bell' run through the associations of the human mind.

In Neuro Linguistic Programming, NLP, the analytic psychological strategy for personal classification is based upon the individuals associations and sensory orientation. e.g. 'I hear that ..', 'I see that ..' etc

e.g. A sympathetic conversation leading to the supply of advice about personal choice of consumer products or cultural opinions elicits a transference of social energies in the form of advice to the other party. This relativity continuously in the form of the tools and artefacts and objects of information impelled by ergonomic and biological expenditure. Such biological expression must also be carried upon a bioelectric or biomagnetic carrier wave to the other individual simultaneously with the sound.

As you relate to an individual and are directing vocal and physical energy in various modes of biological expression whilst resonating or empathising with their mindset there will also be a resonant connection between the external query and the internalisation of the associative and biological response.

The external query having been mutually acceptable for the purposes of discourse then elicited a flow of information from the individual driven by (his) temporal and biological associations. This data flows as a resultant locomotive force from the individual, who is also a physical electromagnetic source of high innervation and biological activity. This nervous, biological and electrical energy flows down the gradient via the conduit of the facilitative associations the target querant put in place with the query structure that the target had empathised with.

This InterPersonal connection or IP connection, or 'relational (social) gradient of mutually acceptable energy association and flow between two energy beings across and down a common time space medium and energy gradient.' [e.g. Köhler, and, Kurt Lewin's 'Field Theory in Psychology', [Tavistock Institute, 1952]] in truth probably does have a real numerical value in Standard Industrial Units in the electromagnetic spectrum ad deduced by Köhler.

Factors such as; the relative lack of personal and psychological symmetry with the individual and relative lack of empathy with their social style of address would introduce impedance into the flow of information. Driven by the energies of either short or long term biological association within the subject a data transaction would flow down the relationship gradient to the needy recipient or querant.

A [TRE] modification of Lewin's Behaviourist Model.

In suggesting or implying that Field Independent Beings are always shallow, irrational and impersonal with behaviour driven from the activities of the natural selection within chemical processes, there is need for caution.

The behaviourist and biochemical assumption that hierarchy is driven by aggression is evident as a normative standard in psychology, but it leaves two possibilities with which to evaluate the Field Independence.

- (i) The Individual is anti-social
- (ii) The individual is asocial.

i.e. either antagonistic or some degree of neutral.

The possibilities within sensory and environmental chaos for the emergence of complex behaviour and the perception of great intelligence and sophisticated 'a priori' knowledge amongst the perceived adaptations was a problem that confounded neuroscience research according to Edelman.

'Another set of observations brings us to psychological dilemmas of the most profound kind. They cast doubt on the idea that the complex behaviour of animals with complex brains can be explained solely by 'learning'. Indeed this crisis highlights the fundamental problem of neuroscience. How can an animal initially confront a small number of 'events' or 'objects' and after this exposure adaptively categorize or recognize an indefinite number of novel objects. (even in a variety of contexts) as being similar or identical to the small set that it first encountered?

How can an animal, in the absence of a teacher, recognize an object at all? How can it then generalize and 'construct' a 'universal' in the absence of that object or even in its presence? This kind of generalization occurs without language in animals such as pigeons.'

[Edelman G, 'Bright Air, Brilliant Fire - on the matter of the mind' pub. 1994, Penguin, ISBN 0-1401-7244-0, p.28.]

Edelman using computer modelling of the physical chemistry of brain behaviour had discovered that there was an automatic intelligence within biological constructs, that when applied to an object interacting by some process with the intelligent needs of the organism produced an adaptive or facilitative response.

In [TRE], this 'automatic intelligence' has a rational model.

The question of whether education in; pain, pleasure or aversion produces civilisation, [Mill JS] is addressed in this work [TRE], however, for neuroscience it is still a 20th Century dilemma.

Perhaps the human sophistry of our intelligence begot more ontologically creative pleasures within profit margins and static fixture investments driven, supplied and defended by other successful tool-making ventures.

The results of human intelligence, however, according to Edelman were driven from a psychology emergent from the behaviour of the physical and chemical context of our environment.

[Edelman 1994, p.160.] 'First of all, we need not reach beyond biology itself to mount any exotic explanations of the mind. No new principles need to be adduced to account for consciousness - only new evolutionary morphologies. Second, these notions, if correct, rule out a general description of the brain as a Turing machine or (arbitrary) computer.

'That consciousness arose in the material order does not restrain intellectual trade; philosophy itself is witness to this conclusion. But it does limit us, despite our

capacity to extend our senses and our powers of calculation through physical devices.'

Edelman's position is that of 'qualified realism' - with recourse to natural, physical and chemical activity.

'Our description of the world is qualified by the way in which our concepts arise. And although there may be infinite freedom (within) a grammar, our language and our ideas of meaning go far beyond the rules of grammar'. 'By taking the position of biologically based epistemology, we are in some sense realists and also sophisticated materialists.' 'Mind, which arose from material systems and yet can serve goals and purposes, is nevertheless a product of historical processes ..'
[Edelman, 1994, p.161.]

Edelman's apparently self-contradictory conclusion that the mind looks like an arbitrary Turing machine, but is not, is not in fact a contradiction in terms of his own 'qualified realism'. This because all physical, chemical, biological and psychological transactions occur in the context of a perception of a transaction from Some A to Some B through some common C (with the possibility of influence also from some common modality D that would add in any transitory and undecidable temporal state.)

The object of our attention, that we interrogate with our senses at time₁ is a noun, A, and its moments of change entail physical; creation, recreation, and therefore does physical and observable work upon its environment that we label as 'verb C' (doing). i.e. Object to do C.

The effect of this work C in our common context has qualitative attributes that we then label after the fact of time₁. Antecedent to time₁ is the working process C done by the changing object A at time₂. It is a qualitative value judgement relevant to our observations and life processes as Adjective B, where the adjective is the process of transaction and interaction currently in focus for this consciousness.

This precept follows the basic rules of physical chemistry and biology and electricity i.e. Fajan's Rules, osmosis and Ohm's Law etc.

In context under observation as a [TRE] proposition, language is:

MACRO is NOUN

MESO is VERB

MICRO is ADJECTIVE

Here, the perceptible interaction of the object of our focus within the setting of our focus is attributing some value to our consciousness such that the acquisition of qualitative appreciation or degradation induces personal growth.

This pain, pleasure, aversion or contradiction between the observer and the object is mediated greatly or little at all by the amount of transitional stages involved in the transference down the gradient from the High-energy system to the Low energy system.

In those terms, natural language arises from and is driven by entirely physical processes.

These physical processes readily translate into [TRE] consciousness and natural language as macro/object/noun, meso/process/verb, micro/quality/adjective.

Language and consciousness as we know it therefore is chemically and ontologically derivable in terms of observational focus and learned associations.

It is this focus that becomes the field strength defined by Lewin in terms of levelling and sharpening.

Lewin's idealistic social model of transactions in field theory cannot be sustained directly by the animal behaviour model alone.

Although the animal behaviour model is hormonally driven through; pain, pleasure, stamina and territory the human model must acquire another layer of analogy to account for; intellect, artefacts, the spiritual and information.

I choose the analogy of an invisible foliage of information within the human jungle.

This was already suggested by Köhler's objectivist stance on the electromagnetic properties of physical biomass and chemistry, similar to Lewin's ideas. In Wolfgang Köhler's own stance on EM field theory, the psychological process was caused by and dependent on and driven by an electromagnetic field.

Both Lewin and Köhler's who were contemporaries had theories that arose out of the Gestalt school.

Language itself is directly rooted in the observations of objects and their physical transactions with the physical context.

These transactions, in intelligent societies have a history of qualitative judgements, social significance and historical values as tools of; pain, pleasure, aversion or contradiction as conscious attributes attached to their physical behaviour and, or manufacture.

'Linguistic Acquisition Behaviour' [LAB], incorporates; physiologically driven mastery responses, nurture, nesting and boundary closure of information systems, and, the introduction and closure of contradictions. The basic physics of objectivism, can therefore fully explain by analogy with self-regulating transaction models e.g. Kauffman S and Langton C in Levy S and also Goodwin B in [Lewin R, 'Complexity, life at the edge of chaos', pub. 1993, Dent, London. ISBN 0-460-86092-5] the emergence of new personal, organic, systemic and social focus in response to arbitrary environmental intrusion and contradiction.

The unusually turbulent challenge to self and society presented by new personal and social and environmental introductions and contradictions, releases more historically solitary information aggregates into the chaotic but eventually self-regulating mixture of information.

Isolated (in terms of analogy with Lewin's 'Field Theory') as 'sharpening', these previously less valuable and unusual aggregates now enter into the re-establishment of equilibrium within the turbulent information, synthesising new attributes that embody, facilitate and encode the perceived changes.

New challenges to; self, social and environmental information arise from the natural order of chaos at various scales of magnitude both internal and external to the immediate context of the self.

These external challenges that include new levels of magnitude and complexity of; pain, pleasure, aversion or contradiction, drive the energy and interactivity levels of the existing complexes to produce greater levels of unity and interactive equivalence. In terms of Lewin [1952], interactive equivalence is truly 'social levelling.'

[LFB] 'Linguistic Acquisition Behaviour' by the individual can be augmented or hindered by previous social information production and artefact deposition. This creates a topographical bias and steep social gradient created by the activities and results of historical priorities. A society, consisting of the systematic interaction of social; aggregates, simples and complexes emerges in a telic way a more organised

and steady state given the consistency of its context with time.

In autocatalytic systems it was found by e.g. Kauffman that data self-organised such that it would most efficiently streamline and regulate its internal physics. Kauffman found that the process of molecular intercommunication gradually eroded the number of unfit or 'sharp' [Lewin 1952] transactions, and increased the number of 'level' [Lewin 1952] or homeostatic interactions.

The laws of physics as pertaining to biology, e.g. the second law of thermodynamics, however, were found by [Langton C, c.1992 CE in Levy S, p.108]] to be wanting as they was not fully able to explain why in biology both emergence and entropy work together to produce construction, destruction and regrowth. Other areas of science e.g. cosmology's 'Big Bang Theory', 'Schiffler's Horns', were at a loss to move on and falsify their bad models which were so-often re-adjusted as to make them unrecoverable [Popper K, 1963, 'Conjectures and Refutations'] as rational conjectures that predicted rational falsifiable results. e.g. 'Big Bang Theory.'

The answer was, however that Langton and the Chaos School were right and, the Linear Reductionists that were also supplying the 20th Century, scientific paradigm with allegations of meaning, were wrong.

Investigations into co-operative self-organising constructs using Darwinistic principles enabled sophisticated artificial-life worlds to become published at the Santa Fe Institute.

[e.g. social modelling that 'extends from the origins of human cultural behaviour to state-level societies ... this approach to the evolution of culture may focus on the study of the emergence of collective behaviour from independent agents whose actions are based on evolving individual schemata, leading to the evolution of social structures.' [Murray Gel-Mann's prehistoric culture project.]

Models of Complexity in the 'natural' universe were starting to pay dividends at the Santa Fe Institute, New Mexico as early as 1991. e.g's..

Modelling of Biological Adaptation with the ECHO model, [Forrest and Jones, Santa Fe Institute] modelling biological and interspecies adaptation.

The Swarm Model, Langton, [SFI]. Swarm is designed for capturing the interactions among a large number of independent agents. The environment is in part determined by the agents, and therefore is modified as a result of their interactions. Swarm is being designed for modelling applications as diverse as ecology, economics, and the evolution of human cultural behaviour.

Epstein and Axtell [Brookings Institution] have developed Artificial Social Life (ASL). 'we have also grown entire little proto-histories of society, in which cultural groups – reds and blues – emerge from a primordial 'soup', and migrate to separate sugar peaks. The basic ecological principle of carrying capacity – that a given resource base cannot support an indefinite number of agents – is immediately evident.

When the populations grow, they force a diffusion back down into the lowland between the sugar mountains, where combat, and cultural assimilation (modelled as tag flipping) perpetually unfold.'

'If seasons are introduced, migrators and hibernators emerge.' [SFI Bulletin, Fall. 1993 vol8, no.2]

An anthropomorphic 'linguistic intake model' for man based on the bio-morphology of physical Acquisition attributes and behaviour, represents the acquisition of data in man at the level of sophistication that Wolfgang Köhler foresaw in the innate bio-

magnetism of man's life and environment.

Beyond Köhler's model however, the 'linguistic intake model' is driven by the necessary biological and continuous observation of and response to, physical change within self and environment.

This is perceived by the individual as changes in linguistic representations of the object transactions within society and the environment.

In terms of the Köhler analogy, the individual is interacting with an invisible meta-layer of intellectual 'biomass'.

In man, 'jaw' is indicative of social elocution and efficiency, where the male may consume by dictate any social obstacle to release its energy using a process and Acquisition behaviour called 'language'.

The human male, its jaw, and the phenotypic structural and ergonomic efficiency of this male attribute (usually indicative of strength to greater or lesser degrees - the more square the more rigid etc) creates a square or cubical effect in the male.

In the female, the reverse is true, where inefficiency and non-contradiction are required, the most able nesting partner tends to have a morphologically slimmer and rounded head or triangular jaw so as not to provoke acts of attention and linguistic Acquisition from any social process.

The implied phenotypic efficiency in either sex may diminish with age and with biological integrity (i.e. decrepitude.).

INTEGRITY OF BIOLOGY, PSYCHOLOGY AND INTELLECT.

With the physical approach to person-centered modelling that took the view: (person (P) - damage (D) at time1 .. time2) the systematic and bio-physical approach to behaviour came with a social penalty.

Bertalanffy responds to the social implications within this inane model of the biological robot.

In 'General System Theory in Psychology and Psychiatry', p.218-219, he quotes (Murray, 1962, pp. 36-54,) stating the case for the robot model.

'Man is a computer, an animal, or an infant. His destiny is completely determined by genes, instincts, accidents, early conditionings and re-inforcements, cultural and social forces. Love is a secondary drive based on hunger and oral sensations or a reaction formation to an innate underlying hate. In the majority of our personological formulations there are no provisions for creativity, no admitted margins of freedom for voluntary decisions, no fitting recognitions of the power of ideals, no bases for selfless actions, no ground at all for any hope that the human race can save itself from the fatality that now confronts it.'

Bertalanffy p.218 criticises the idiom .. 'the tenets of robot psychology, ... the concept of man as a robot was both an expression of and a powerful motive force in industrialised mass society. It was the basis for behavioural engineering in commercial, economic, political and other advertising and propaganda; the expanding economy of the 'affluent society' could not subsist without such manipulation. Only by manipulating humans ever more into Skinnerian rats, robots, buying automata, homeostatically adjusted conformers and opportunists (or, bluntly speaking, into morons and zombies) can this great society follow its progress toward ever increasing gross national product.'

Bertalanffy then illustrates the human problems that arise out of an affluent society experiencing satiety. ... 'Precisely under the conditions of reduction of tensions and

gratification of biological needs, novel forms of mental disorder appeared as existential neurosis, malignant boredom, and retirement neurosis (Alexander, 1960), i.e. forms of mental dysfunction originating not from repressed drives, from unfulfilled needs, or from stress but from the meaninglessness of life.'. Bertalanffy required a more flexible model for the human psyche than the rigidity of the robotic model, believing that an 'active personality system' was 'a more adequate conceptual framework for normal and pathological psychology.'

Ludwig von Bertalanffy, pub. 1971, Penguin, 'General System Theory'.

Bertalanffy in 1971, in his bibliography indicates a massive body of social and scientific research dedicated to general system theories.

It was not until the advent of massive computation two decades later at the Santa Fe Institute c.1990, that true perspectives into 'vertical scales' of computational modelling and complexity were to be illustrated.

Later developments in massive computational modelling of self-regulating neural nets simply re-enforced the behaviourist approach to roboticism, developing a homeostatic and flexible system that was never-the-less programmable and robotic. Such systems were never autocratic, as they were domain and often task specific because they operated with reference to the world of their immediate context, its labels and the arbitrary.

e.g. [from: Coveney P and Highfield R, 'Frontiers of Complexity - the search for order in a chaotic world', pub. 1995, Faber and Faber, ISBN 0-571-16991-0]. 'Kohonen's self-organising neural network differs from the multilayer perceptron and Hopfield nets because it is a single layered, two-dimensional collection of neurons; each input neuron is completely connected to the neurons in this layer. When taught a task, such as converting speech into text, it automatically generates a feature map within the network. (p.307-309). '... The kind of localisation of function seen in real brains emerges naturally in this model.'

'Grossberg S and Carpenter G developed adaptive resonance theory (ART), (p.141 refers) .. using the Kohonen nets. They are called adaptive nets because they are based on certain biological models of behaviour and cognition. ' ... a small oscillation of the same frequency as the natural vibrations of a mechanical or electrical system can set the system oscillating with a large amplitude - with shattering results, as when an opera singer hits the resonant frequency of a glass. Similarly, information that propagates through an ART network oscillates between the neural layers; during this resonant period, adaptive learning occurs.'

Bertalanffy though had demonstrated the flaws and ills in the reductionist scientific paradigm that would serve to constrict and restrain organic vision into the insensitive domains of tool-enhanced reality where other metaphysical realities may encroach through disassociation from the organic in a mechanistic explanation of reality. (The process of de-anthropomorphization -Von Bertalanffy, 1937, 1953b).

'Physics necessarily starts with the sensory experience of the eye, the ear, the thermal sense, etc., and thus builds up fields like optics, acoustics, theory of heat, which correspond to the realms of sensory experience. Soon, however, these fields fuse into such that do not have any more relation to the 'visualizable' or 'intuitable': optics and electricity fuse into electromagnetic theory, mechanics and theory of heat into statistical thermodynamics, etc. This evolution is connected with the invention of artificial sense-organs and the replacement of the human observer by the recording instrument. Physics, though starting with everyday experience, soon transgresses it by expanding the universe of experience through artificial sense organs. Thus, for

example, instead of seeing only visible light with a wave length between 380 and 760 millimicra, the whole range of electromagnetic radiation, from shortest gamma rays up to radio waves of some kilometres in length, is disclosed. .. with a mechanistic view, we .. enter another metaphysical realm.'

[Bertalanffy, GST, 1971, p.255.]

For Humanity, enduring stress and suffering aids the process of social cohesion in promoting; unity, self awareness, social symmetry and sensitivity (e.g. do unto others as you would have them do unto you), and ecumenical tolerance.

The machine however, operating at greater scales and levels of physical tolerance within e.g. a biological environment, has no such problems with the psychology of systemic stress i.e. pain and aversion.

To a certain extent, there may be 'social co-operation' within equivalent physical systems (species) at all levels of a physical magnitude, but not between all levels of magnitude. (predation)

THE NATURE OF CONSCIOUSNESS

Human Souls, from wherever or whatever perfect Universe they come from and relate to come to this Universe and form large soul clusters. In our case, the physical impact of our synthesis produces; desirable and persistent objects and artefacts and information.

They may not always choose to co-operate with their inherited biology though.

In the material Universe, souls are performing the distillation of information processing systems into a cognitive core capable of autocratic self-regulation. e.g.

[Roman Law, Justinian c.500 CE]

The intellectual chemistry of soul affiliations and memory retention of previous social interactions, makes possible the evolution of structure, nurture or destruction much in the same way that compatible or incompatible chemicals have the potential for interaction.

If souls are the chemistry, then it is God that is the first cause of our grateful Architecture and of our gardens and 'many mansions' of abundant Aether.

Groups of soul molecules are thus being formed or are forming into artefacts by another perspective. We cannot see it, but teleology gives us a model.

Individual souls may thus mediate between polar opposites and by acquired and innate skills, to utilise the results of the many transactions, and much in the same way that a planet. e.g. Earth, has a specific and biased periodic table. The chemistry of group souls is such that many transactions and ideological artefacts would not be Universally congruent.

Souls may form and operate; monotonic, dualistic, simplex or complex associations and relationships.

The organic/biological idioms have their own 'ideas' that produce classes of artefact. These progress into more specialised tools.

An organism or artefact results from a slowed and differentiated and considered discharge and direction of energy between two systems. E.g. self and the world, or self and self.

The effectiveness of energy release of the object's structure and mechanics contributes efficiency to the end result.. Intellectual Acquisition contributes to the greater self-regulating umbrella of the whole in Man's Society.

The colours and linguistics and form of such records, record qualitative states of excitement and values that can be attributed to each of the processes commonly viewed and agreed within the group.

Certain social objects may be imbued with representative attributes and issues, and imbued with either; historic, contemporary or projected issues within the group.

These may for example be represented with stable morphology, unstable morphology, positive colouring or negative colouring that may or may not reflect group issues and policies.

In soul group emergence where new souls intercede from elsewhere, their conformity to social resting norms within degrees of transference between and amongst the social aggregates can be measured by the velocity of the transference gradient.

This level or sharp transfer of personal issues may be embodied as distortions in socially created artefacts.

If the innate scaling differences in these beings brought with them from operating previously different forms and social constructs are too high in relation to the agreed social norm, they will cause social distortion.

Linguistic and cultural distortion in; artefacts, beings, and social behaviour may be detectable as depictions of; process breakage or overload or overstatement amongst the cultural, social, or peer group norms, that have been previously agreed.

If the social structures set up by society to facilitate this new shift in attitude are adhered to, and the output of this new body of contradictory soul assets are amenable and agreeable to society such that the perceived distortion in the original cultural assets are removed, then this new incumbent, or set of, is an asset to this social group of souls and their 'a priori' agreements.

An evaluation of a combination of the deviants; social, physical and intellectual tools combined with their social product as material objects would determine the performance and value of a being to society and its agreements.

Questions arise as to whether the output is; context orientated, appreciative, respectful, etc, however at a chemical level of analogy, these 'qualities' are relative judgements. The deviants' facilitative contributions of input (chemically speaking) are perceived in objectivism as 'transitional elements and materials' created and relative to the 'a priori' ontological modelling of our social organism. The 'a priori' social organism and equilibrium is comprised of artificial self-regulating agreements between existing elements of being.

Souls preferring different ratios of high to low [sharpening/levelling and transference] whose life experience originates in new and different cosmic aggregates and intrusions and inclusions will interact with the previously established social equilibrium.

These interactions will have higher than normative transference velocities creating new fusions within existing materials or new products and fusions from within existing materials.

Senses and perceptions and their effects good and bad on the nature of being have been discussed and returned to for millennia in the great traditions of humanity.

The modern case for objectivist perception is still being re-iterated today in the era of massive computation, but had clarity in the 18th Century.

Isaac Newton in Opticks, 1704, ' ... The ... light and rays which appear red, or, rather,

make objects appear so I call rubrific or red-making; those which make objects appear yellow, green, blue, and violet, I call yellow-making, green-making, violet-making, and so of the rest. And, if at any time I speak of light and rays as coloured or endued with colours, I would be understood to speak not philosophically and properly, but grossly, and according to such conceptions as ... people in seeing all these experiments would be apt to frame. For the rays, to speak properly, are not coloured. In them there is nothing else than a certain power and disposition to stir up a sensation of this or that colour. For as sound in a bell, or musical string, or other sounding body, is nothing but a trembling motion, and in the air nothing but that motion propagated from the object, and in the sensorium it is a sense of that motion under the form of sound; so colours in the object are nothing but a disposition to reflect this or that sort of rays more copiously than the rest. In the rays they are nothing but their dispositions to propagate this or that motion into the sensorium, and in the sensorium they are the sensations of those motions under the form of colours.' [Newton I, 'Opticks': 1704, in Flew A, p.89, 'An Introduction to Western Philosophy', rev. pub. 1989, Thames and Hudson, ISBN 0-500-27547-5]

The requirement to identify an object in flux with which to reflect on as a noun has been stated by Plotinus c.600 BC and Descartes in rule 11 of 'rules for the direction of mind'. From the former: 'By reflecting on the mutual dependence of two propositions, we acquire the habit of distinguishing at a glance what is more or less relative, and what the steps are by which a relative fact is related to something absolute.'

Having defined a basic 'natural' transaction model in [A] as; some A to some B through some common C, with the intercession of some D, we are faced with the values of the sense receptors, our material capacities etc to record or retain or peruse the materials and qualities that have interested us.

Descartes in rule 12 of 'rules for the direction of the mind' with additional editorial by Hennessey 2004, : - 'we ought to employ all the aids of understanding, imagination, sense and memory, first for the purpose of having a distinct intuition of simple propositions; partly also in order to compare the (qualitative assessment of) propositions (e.g. transaction observed at time1) to be proved with those we know already (from artefacts and information stored), so that we may be able to recognise their truth; partly also in order to discover the truths, (of the relativity and use of this interesting process), which should be compared with each other so that nothing may be left lacking on which human industry may exercise itself.'

Descartes, however, didn't schedule the interruptions of natural chaos into his system of rules. The finalism, however, was there.

Rule 5, 'method consists entirely in the order and disposition of the objects towards which our mental vision must be directed if we would find out any truth. We shall (attempt to) comply with it exactly if we reduce involved and obscure propositions step by step to those that are simpler, and then starting with the intuitive apprehension of all those that are absolutely simple, attempt to ascend to the knowledge of all others by precisely similar steps.'

As such human social systems based within complex biology assemble through the production of regulatory synthesis and structure, the tools of emergent behavioural activity, the intellectual output require a common medium of constructs - an operating system of language upon which to base mutual reaction and interaction and facilitation.

The processes and motions and transactions observed within the commonality and equivalence of a scale of energy-complexity by an organisation can be recorded as

objects, artefacts and information.

The more sophisticated the investment in social growth, facilitation and regulatory evolution, the more 'objects and information' that would be produced in proportion. [e.g. also Descartes; rule15, rule16.]

Social interaction, then, can be measured in terms of an objectivist and empirical approach to both individual production and individual production in relation to the social necessity.

If the output is to be adjudged healthy, then it must only be sufficient that it appeals to a broader than local, or, regional category of output that is normative. The output would use the attributes of local materials, their transference velocities and complexities and previous transference records to represent a new ordering of knowledge.

SOCIAL DYSFUNCTION IN NEW INCORPORATIONS OF BEING

In certain forms of autism and in the case quoted by Edelman, visual data is completely unrecognised in its raw state of swirling, continuous, fluidic forms of colour.

The mind to certain degrees does not build meaning maps and associations from visual data - relying more upon the catalogue of sounds and their re-enforced associations. [Edelman G, 'Bright Air, Brilliant Fire - on the matter of mind', pub. 1992, Penguin, ISBN 0-1401-7244-0.]

The repeated imposition of sensory data upon the biological template creates meaning and association for the parameters of reality and the boundaries of our personal relativity, our comfort zone and our ideas of personal and social context. The mind effectively emerges a map to account for the new data at time2 imposed by new kinds of physiological stress and new types of sensory data.

Such physical stresses may severely challenge our psychological and physical integrity.

The biological model, driven by the adrenal gland and the endocrine system challenges the being to invent a new coping strategy or a better aversion strategy such that levels of tolerable comfort in which to study interesting process may again be attained.

In human society, language is the key to achieving a comfortable amount of self-regulation and tool development.

In the social context, objects and what they do and how well they did it in relation to any other is a reality that is framed in language as: nouns, verbs and adjectives.

This pragmatic, evaluative approach enables discourse through recording of symbols (syntax) and their compilation into the description of a transactional process (semantics) and the relevance of this description to the meaning of a social being and being social.

Plotinus, c.250 BC , Fourth Ennead.32, .. 'Where there is similarity between a thing affected and the thing affecting it, the affection is not alien; where the affecting cause is dissimilar the affection is alien and unpleasant. Such hurtful action of member upon member within one living being (the All), need not seem surprising: within ourselves, in our own activities, one constituent can be harmed by another .. in the vegetal realm one part hurts the other by sucking the moisture from it.'

The internal resonant and self-contained harmony inherent in being is further described by Plotinus. c. 250 BC

Plotinus, Fourth Ennead.35, .. '... the being we are considering is a living unity and, therefore, necessarily self-sympathetic: it is under law of reason, and therefore the unfolding process of its life must be self-accordant; that life has no haphazard, but knows only harmony and ordinance: all the groupings follow reason: all single beings within it, all the members of this living whole in their choral dance are under a rule of Number.'

The universal transaction of high energy to low energy through a common medium versus some other intercession challenges individual integrity. In society, such challenges can be confusing in terms of its significance and the relationship with self and other and the medium of syntax.

Descartes in his 'Objections against the meditations, and replies', [1641], number4, outlines the problem .. 'Let us assume that a certain man is quite sure that the angle in a semi-circle is a right angle and that hence the triangle made by this angle and the diameter is right-angled; but suppose he questions he questions and has not yet firmly apprehended, nay, let us imagine that, misled by some fallacy, he denies that the square on its base is equal to the squares on the sides of the right angle.'. But I clearly and distinctly understand that this triangle is right-angled, without comprehending that the square on its base is equal to the squares on its sides. Hence God at least can create a right-angled triangle, the square on the base of which is not equal to the squares on its sides. I do not see what reply can here be made, except that the man in question does not perceive clearly that the triangle is right-angled. But whence do I obtain any perception of the nature of my mind clearer than that which he has of the nature of the triangle.'

'I think, the idea that I form of the self, which is in this way an object of thought, represents me to my mind as merely a thinking being, since it has been derived from my thinking alone.

And hence from this idea, no argument can be drawn to prove that nothing more belongs to my essence than what the idea contains.'

In this latter sentence, Descartes shows that, although driven by objectivism to identify the essence of social and structural perception - and those beings who refuse to or cannot reason, is missing out on the other aspects of social atmosphere and intercourse described in the semantics and syntax of 17th Century Holland. The being, whether unagreeable or disagreeable, has a commonality and equivalence of social life in the society it has chosen to incorporate within. The society has 'a priori' established its own rules for growth and life, self-regulation and nurture and pragmatic discourse and those other rules that may or may not facilitate new output from new input and unfamiliar transference velocities.

Plotinus c.250 BC, in the Fourth Ennead V.4 writes of the medium in which the transference gradients of 20th Century Wolfgang Köhler and Kurt Lewin in their field theories in psychology takes place.

'... the sympathetic quality of the universe depends upon its being one living thing, and that our amenability to experience depends upon our belonging integrally to that unity; would it not follow that continuity is a condition of any perception of a remote object?

The explanation is that continuity and its concomitant, the bridging substance, come into play because a living being must be a continuous thing, but that, none the less, the receiving of impression is not an essentially necessary result of continuity; if it were, everything would receive such impression from everything else, and if thing is

affected by thing in various separate orders, there can be no further question of any universal need of intervening substance.'

The local etheric transfer gradients have their own normative velocities from new emergence and of the transference within and between the existing aggregates and their existing ratios.

It is here that Scottish society resides.

From these ratios and proportions therefore, emerge our physical context in which our artefacts and information, tools, and pragmatic discourses emerge and are retained for objective analysis on their social relevance to our social regulation and intercourse.

If our knowledge of social beauty is not 'a priori' then it is possible that it will undergo a degradation of new and emergent physical ratios and velocities that produce new information formats and

social objects.

Existing artefact manufacture in a social system of; semantic and pragmatic relativity, i.e. meanings applied to the world context via the common medium of syntax and language can be considered to be tool-making behaviour.

This activity provides resolutions or bridges between differences within social discontinuity releasing the discharge of energy into the social regulatory mechanism. i.e. in the words of Lewin [1952] - 'levelling' - a social and communal equivalence. Sharp contrasts in social behaviour (e.g. artefact and information production) are defined by Lewin as 'sharpening' and are defined as anti-social.

As self is in a causal equilibrium with an imperfect world and the identity aspires towards perfect solutions at any given time in relation to the integrity and capacity of the self, the release of the tool-strategy investment of 'Acquisition' or 'bridging' energies must be in the context of a continuity to which it is directly related.

Within a stable, secure and perpetual society, the capacities for lateral thinking between scales of aggregates and new aggregate ratios and scales and their transference velocities and consequent products will emerge in the more regulated levels of telic order for the benefit of the whole.

The ongoing danger to society and social evolution of unregulated social aberrance is as relevant today in the early 21st Century as it was when Thomas Carlyle in 1865, published 'Sartor Resartus'.

'To say all this, in never so many dialects is saying little. 'Glasgow Thuggery', 'Glasgow Thugs', it is a very witty nickname: the practise of number 60 - entering his dark room, to contract for and settle the price of blood with operative assassins, in a Christian city, once distinguished by its rigorous Christianity, is doubtless a fact worthy of all horror.'

'How inexpressibly useful were true insight into it, a genuine understanding by the upper classes of society what it is that the underclasses truly mean: a clear interpretation of the thought which at heart torments these wild inarticulate souls, struggling there, with wild inarticulate uproar, like dumb creatures in pain unable to speak what is in them.

Something they do mean; some true thing withal, in the centre of their confused hearts created by heaven too.

To the heaven it is clear what this: to us not clear.

Would that it were. Perfect clearness on it were equivalent to remedy of it.

For as is well said, all battle is misunderstanding did the parties know one another,

the battle would cease.

No man at bottom means injustice; it is always for some obscure distorted image of a right that he contends; an obscure image diffracted, exaggerated, in dimness and selfishness, getting tenfold more diffracted by exasperation of contest till at length it become all but irrecognisable, yet still the image of a right.'

It is in the interests of society to evaluate the 'obscure and distorted images' [e.g. Carlyle, Descartes, Plotinus,] resulting from the conscious activity within the incorporation of being, lest new emergence rates in the ether destroy and tear our normative ratios of peace and excellence apart. By facilitating new kinds of being and consciousness in these new material aggregates, a normative social stasis within a temporal fixture in an ever changing universe that is not monitored for such distortion, will be prone to de-regulation and dis-integration.

'Relatively unmediated discharges of high velocity between massive clashes of scale in society will cause distortion. i.e. an undesired change in waveform. Physically and empirically, these can be evaluated as;

- a. a non-linear relation between input and output at a given frequency.
- a non-uniform transmission across different frequencies.
- a phase shift that is not proportional to the base frequencies.

Within physical systems such as electrical engineering, distortion tolerances within the aggregates and ratios in the materials produce reactive compensations such as; field time distortion and other forms of delay whilst intermodulation of the resonant components takes place.'

['Standard Dictionary of Electronic and Electrical Terms', pub.1988, edn.4, IEEE, NewYork, ISBN 155937-0009, p.280-281.]

1.333 - AN AUGMENTATION OF THE BEHAVIOURIST ASSUMPTION. (SIMPLICITY TO COMPLEXITY.)

What is our moral reason to help this Being ?

Social structure.

Ontological Test;

Introduction.

Metalanguage [G].

Framework for empirical test -

in the context of the social welfare process.

Test Criteria.

The morality of the Social Context.

Beings agree to be in a spacial and temporal locality and they emerge mutually beneficial artefacts and information amongst their social organisations.

Degrees of complexity between; beings, Self, and environmental context will evolve

specialist adaptations to level the differences between group and group-self and targeted resources in the context. Mountains of self and group stimulus and excitation material can be accessed by group co-operation and group self-regulation. A Acquisition discharge route or bridge can be socially created down which to discharge the resource extraction from the environment and or group context. The creation of this Acquisition route is here called Bridging Activity [BA].

As in the physics of nature, where the self-regulation of diversity is seen to be auto catalytic, in intellectual self-regulation the intellectual tools and levers and brakes, artefacts and information must facilitate the growth of personal and social equilibrium and intellectual diversity.

However, detrimental conduct and product amongst the individual and social aggregates and the changing environmental and social context, if un-attenuated, will compromise the ability and integrity of any group to self-regulate.

Recurring input of distorted ideation [or abnormative group chemistry] at times of group dilemmas can downgrade the performance of systemic capacity to produce an equilibrium. Further, the facilitation of structural changes for social adaptation requires a steady flow of normative precursors into the equilibrium such that society and its regulatory powers are being temporally and continuously fed and maintained. Abnormative input into the existing or new chemistry of the existing social equilibrium whilst it is re-asserting and emerging its new steady state could significantly rupture the existing social contract.

Emerging structural challenges from any new environmental factor could be severe enough to produce and cause fluctuations in scale and contrast, introducing new inputs into previous definitions of levelling and contrast. Whilst a new social adaptive response emerges from within the existing system, the existing system could be in a very untenable state - vulnerable to deliberate sabotage.

If such challenges are discontinued social structures may be redeveloped, if not, then they will produce process interruption in their social context, and subsequent conflict with existing rules and agreements.

In terms of chemical engineering and social interaction models, any new inclusions in social aggregates may not immediately be active or perceptibly hostile to social unity.

These may however, because of a lack of social mobility and evolution be immutable agents for social change; either for the good or for the worst.

These are catalysts.

If these catalysts remain undisturbed, however, they may remain undetected and unreactive.

Satterfield CN and Sherwood TK, 'The role of diffusion in catalysis', pub. 1963, MIT, Lib.Congress.Cat. 63-16570. in their preface page (iii) state that in organised industrial regulation - 'no matter how good a solid catalyst may be, its performance in a reactor (i.e. social situation analogy) will be ineffective if the chemical reactants cannot get to the active surface and the products removed and recovered. This exchange (i.e. social context challenge analogy), is ordinarily effected by mass transfer or diffusion between the solid catalyst and an ambient stream of gas or liquid. (i.e. flux between new chaos inclusions and emergent response of local social aggregates.)

Every container contains a container that is interacting with another container, therefore. In the words of Jonathan Swift: 'Big fleas have little fleas upon their backs to bite 'em, and little fleas have lesser fleas and so, ad infinitum.' [Odum EP, 'The Fundamentals of Ecology, edn.3.', pub. 1971, W B Saunders, ISBN 0-7216-6941-7,

page.84.].

The chemistry of [TRE] essential behaviourism is entirely devoid of scale.

In terms of the chemistry of self-regulating social systems that contain a context-sensitive process, and in terms of the psychology of integrity as pertaining to the self, and in terms of the integrity of that self in relation to the psychology of society: the [TRE] triad model for social psychology can be defined as:

MACRO	SOUND OR NOT SOUND [CONTAINER SYSTEM]	[C] V [notC]
MESO	FUNCTIONAL OR DYSFUNCTIONAL	[F] V [notF]
MICRO	EVOLUTIONARY POTENTIAL OR NOT	[P] V [notP]

The social context and its elements, the macro; as pertaining to an individual can be defined in terms of an ideological vehicle constructed for the temporal activities of social life that drive and exploit the social circumstances to yield the evolution of social tools for Acquisition gradient strategies and resolutions.

These physical gradients like the aqueducts of ancient Rome, are 'bridging activities' [BA] that will produce social fabric, artefacts and information both at a personal and social level.

These [BA] tools or, [BAT], and their yield of information produce relative degrees of 'capital' that may be re-invested in greater [BA] strategies. The yield of [BA] product may be directly proportional to the efficiency of the created [BA] strategies and tools, but not always, because of either entropy or social distortion introduced into the process.

The driving engine of [BA] - the personal and social constructs of the psyche, or MESO, is evident in its number and content of socially produced artefacts and information. It has two socially and empirically measurable jobs to do to remain viable in the creation, of a Acquisition gradient.

It has to sustain the integrity of its umbrella relative to its temporal social position and the local demands and tolerances of the temporal social context.

- (a). Bridging Activity Personal [BAP] i.e. 'self'.
- (b). Bridging Activity Social [BAS] i.e. 'other'.

It must also facilitate the supply to and investment in the stresses of social repositioning and evolutionary extension - i.e. to supply or fund bridging activity [BA] extension into two environments and in relation to other modal and transitory demands and stresses. e.g.

- (a). local environment. [BA1]
- (b). goal environment. [BA2]
- (c). unidentified external. [BA3]

Under such arbitrary circumstances as the introduction of clashes of scale into social and environmental competition - the resulting chaos and personal psychological deconstruction in both the local and the goal environment, and failures in the physical tolerances of tools may mean depletion of the Bridging Activities.

Where self-regulation of self and, or, society fails such that no adaptation to the stressors has occurred, then disintegration of the aggregates and ratios of personal

and, or, social integrity will result.

The repetitious introductions and re-enforcements of alien ratios and aggregates will feed into the personal and social equilibrium causing distortion in the self and social; creative, re-creative and emergent process.

The failure and rupture of the social context and equilibrium may have been attenuated and redirected into a successful outcome had it been picked up by social rules and agreements within both local and goal environments.

Within the ideological constructs of personal and social identity, some personal and, or, social flaw has halted the emergence of personal and social assets.

Some irregular loading on personality constructs has caused these distortions and ruptures, should the personality failure not be accountable socially by normative social mechanisms.

Personal failure of self under stress whilst utilising arbitrary aversion strategies such as; speculative and un-informed investments in [BA] tools and strategies will be indicative of social incompatibility.

Within the context of a series of other local personal challenges and disruptions of the local social umbrella - the individual identity is seen to fail after the assimilation and uptake of more arbitrary tools and constructs. At turbulent times of mixing between scales and components of the social aggregates within the social equilibrium, larger scales of aggregates and diversity intruding into and substituting the options within the local [BA], or bridging activities may represent too great an investment in personal systemic integrity to personally exploit.

The personal and, or, social absorption of these new assets or hindrances to the regulation of an umbrella of self and social integrity may render the existing social components incapable of adapting. Evolutionary commitments to bridging activities [BA], in society attempt to fulfil previously agreed short or long-term personal locality objectives and social goals.

The absorption of assets by the demands and activities made by new emergence, compaction and entropy impact on the integrity of both the personal and social envelope.

The failure of the individuals local and personal fabrics and precursor supply with time under this sustained systemic stress from new emergence gradients will be personally in evidence as a failure of recently produced objects, artefacts and information.

i.e. various personal investments in psychological and tool-based extensions for bridging activities that have achieved no return.

These failures have arisen from the intrusion of new physical aggregates, constructs, scales and ratios and temporal performances into the individuals social context. This hard challenge on already over-extensive and over-sustained investment in prior bridging activities towards could compromise the individual whose ambitious and steep Acquisition gradient have been undermined by previously undetermined and un-agreed levels of participation in social entropy.

The social assessment of the long-term social prospects inherent in an individual's bridging activities [BA], requires a realistic look at their social positioning, investment and product efficiency within the class structures of their social aggregates.

A realistic evaluation of relative psychological performance as regards to the individual's relative handling of any personal and social tool-making behaviour and investment, must be undertaken, and evidence of personally produced social distortion must be sought.

Personal distortion can be introduced into social output when the local rules of;

1. ratios of social structure are admixed by incongruent imports of new materials/alleged social ingredients that do not facilitate a priori agreements and recombinations and the scale of emergence and temporal turnovers then becomes relatively overloaded or underloaded.

2. rates and velocity of interaction with these alleged resources down the bridging gradients are too sharp and too high. These drive and load and monopolise the bridging and Acquisition gradients such that local combination and recombination within existing normative artefacts are drastically distorted.

The impact created by abnormal loading of ratios and rates upsets the agreed numbers to be added, subtracted, associated and distributed within the context of the social regulatory mechanism.

The status quo thus influenced and distorted by personal participation loses a durable set of structures that had operated within agreed material and social tolerances.

The physiological and psychological equilibrium, a usually self-regulating umbrella for stable consciousness has been compromised.

Social relativity has failed because of an exposure to unregulated diversity in the life of Society.

In this society, competition is based on the ethic of 'the most benefit (profit) for the least cost.' A social principle that regulated such market forces, though, could be added such that the services to the markets and consumers can be maintained.

Adam Smith in 'the Wealth of Nations' would have it that corporate survival depends on high profit margins. In social reality, however, this 'cost-benefit analysis' i.e. the least damage that the most cost, when applied to the social context during industrial practise would be an un-economical practise if prone to wasteful abuse by Industry. e.g. 19th Century and 20th Century 3rd World Industrial Revolutions.

In truth and syllogism and empiricism therefore, Adam Smith's doctrine is true as; e.g. social scenario A.

Most Benefit Industry	Least Cost Industry	MBI	LCI
Most Damage Environment	Least Cost Industry	MDE	LCI
Most Benefit Industry	Most Damage Environment	MBI	MDE

Where 'Damage', is damage to the structural proclivities caused by aggressive mono-cultural social bridging activities inherent in the environmental context. These constructs of self-regulation and the supply of pre-cursors to the equilibrium will become overloaded by persevering with monotonic resource commitments to social and cultural bridging activity.

e.g. commitment to global profits and literally useless profit margins has caused; 'rivers have caught fire and burnt their bridges, Lakes and inland seas - the Baltic, the Mediterranean - are under threat from untreated wastes many of which can feed bacteria and algae: (e.g. 'the subsequent eutrophication of Lake Baikal c.1980's) these in turn exhaust the water's oxygen and threaten other forms of marine life. The burning of fossil fuels is increasing, with unforeseeable consequences for the earth's climates and atmosphere. Dust and particles in the atmosphere may also alter the earth's temperature in unpredictable ways. Even the vast oceans, covering 70% of

the globe and providing an apparently in-exhaustible reserve of moisture, an endless dump for wastes and a perpetual source of freshening winds and currents, are far more vulnerable to man's polluting activities than has been assumed. ' 'In short, the two worlds of man - the biosphere of his inheritance, the technosphere of his creation - are out of balance, indeed, potentially in deep conflict. And man is in the middle. This is the hinge of history at which we stand, the door of the future opening on to a crisis more sudden, more global, more inescapable and more bewildering than ever any encountered by the human species and one which will take a decisive shape within the life span of children who are already born.'

'Ward B and Dubos R, 'Only One Earth - the care and maintenance of a small planet.', pub.1977, Pelican, 'the United Nations Conference on the Human Environment (June. 1972)'. ISBN 0-1402-1601-4.

Society, can prioritise for the most benefit to; social performance, corporate efficiency and industrial development such that the least damage was caused at the least cost.

That way the most Benefit to Industry is obtained by causing the least damage to the social environment and its prospects for social perpetuity.

e.g. social scenario B. e.g. subsidised carbon tax

Most Benefit Industry Least Damage Environment	MBI LDE
Least Cost Industry Least Damage Environment	LCI LDE
Most Benefit Industry Least Cost Industry	MBI LCI

There, the most benefit to bridging industries that caused the least damage to the social environment and alternative and subsidiary bridging activities is a priority. Moreover, the most benefit obtained was at the least cost to the supply of social precursors such that diversity and adaptations and new emergence productions and inclusions can be facilitated.

Monotonicity and monocultures and monopolies were the main reason for the strategic failure of the 20th Century Military Industrial Complex to put Mankind in touch with the interplanetary resources such as Mars and the asteroids.

The strictures of hedonistic stupidity and lax thinking already mentioned by Dwight Eisenhower in his speech quotes in the introduction to this Opus successively failed to deliver any option for the Race Home in over 100 years of 'science'.

It can be seen from the principles of self-regulation that the individual bridging activities must not distort or pollute the regulatory capacities of the whole system. Thus whether social strategy A or B is employed, individual self-regulation in this context must be facilitative and adaptable.

The best social conditions for monotonic or diverse bridging activities in any aggregate social strategy for the individual, therefore, can be defined in terms of the least personal damage to; personal, civic and social environmental structures or umbrellas.

The social good therefore can be defined in terms of all legitimate actions and events that aid the process of; nurture and the sustenance of the social equilibrium and its bridging activities within any given social context.

A universal social context for an individual, is, (with the 'a priori' assumption of a legitimate social order) that a philosophy of nurturing social and self-regulation can satisfy all the requirements of the; bridging activities, tool, information and artefact

production of the deviant. both as a producer and consumer.

The social umbrella, therefore, can be designated in any context at time¹ as having integrity or no-integrity in relation to either; itself and its environs and, or, the individual. and his environs.

Similarly, within the legitimacy of class structures and occupations, social regulations as legitimately imposed can also be denoted as having nurturing integrity, or, no integrity.

Similarly within peer groups and occupations, irrespective of class, The individual. would experience either a feeling of a presence or absence of integrity. Although not an immediate issue in terms of social recourse for his psychopathology, has the deviant also a legitimate complaint to make against his society?

In terms of isolation from an academically defined reality for instance and the levels of occupational finance needed to maintain it, is the world of the individual. suffering from delusion caused by the lack of realistic expectations and definition from the failure of unrealistic and unsustainable bridging activity?

The attempt to maintain an umbrella of personal systemic biological and therefore psychological nurture against the competitive stress of bridging activities [BA] and a free-market economy is down to personal and legitimate choice.

Has the individual made an inappropriate choice of lifestyle commitment as a consumer, such that he has compromised his biological systemic integrity, and therefore, the security of his wellbeing.

Further, has the individual. now become a danger to his peer group and to society?

An evaluative procedural model follows with which to investigate this idea in terms of chemical structuralism and systemic integrity.

The context for the analysis is a facilitative social welfare process.

The adaptation of [TRE] and its tripartite principles for psychological diagnostics will be described in terms of:

the tripartite language [G].

assumptions.

1.0 Every social and personal system is nested within another system whether physical or psychological.

2.0 Every system is a container of and for energies of one context, designed by evolutionary need to hold and process the energies of a lesser self-regulating system.

3.0 The processing of energies takes place through the meso such that its structure and mechanics e.g. organs, can compartmentalise, and invest in by; anabolism or catabolism and other structural orientations and aggregate responses, the precursors that have emerged from the lesser contextual idiom. The lesser idiom is incorporated by the greater systemic complexity such that the uptakes using the greatest bridging gradients available at time¹ can be fulfilled.

4.0 A systemic container is either sound or not sound in any

given context. [C] V [not.C]

- 5.0 A container is constantly augmented to maintain its function or not. [F] V [not.F]
- 6.0 A container provides potential for evolution or does not provide life chances. [P] V [not.P]
- 7.0 The negation of [C, F, P] i.e. [not.C, not.F, not.P] implies that the factors causally exist for the purposes of Logic. i.e. the fact that they can be rationally refuted make them for the purposes of [TRE], empirically valid and discernibly 'a priori' for any social identity in every social system.
- 8.0 The active participation of the individual's social identity in its social bridging activities and local Acquisition gradients and other non-local demands from bridging activities arising from the social exploitation of its resource base will result in the manufacture of a bridge down which a transference of energy will flow from the target resources to sustain the individual.

In human society, the set [C, F, P] for; Container, Function and Product have the attributes of [Cx, Fy, Pz], where the properties of

[x, y, z] can belong to numerous social domains e.g. in a telic sense:

1. Information technology,
2. Biology,
3. Chemistry.

The Meta-Language [G].

MACRO	C	C	C	C	Cx	Cx	Cx	Cx
MESOF	F	F	Fy	Fy	F	F	Fy	Fy
MICRO	P	Pz	P	Pz	P	Pz	P	Pz

The organisation and development of Bridging Activities by; tools, artefacts and information releases Acquisition energies at various velocities down the bridges and resolutions of the interface constructs to the actively exploitative system at time1. There are various bridges built to exploit the aggregate ratios, scales and interactivities by various domains, properties and identities within human activity. These take the form of many kinds of perceptible artefacts, tools and intellectual processes derived from many aggregates, scales and social aspects of both society, information and being.

Human Society is berthed upon the intelligent perception of and agreement with the integrity of; chemical processes, biological processes and information evaluation through the production and storage of artefacts, tools and information on a common platform.

The following three scales of example belong to the human idiom, though, it is true to say that in all but the level of detail that we can agree on to like and share - they are in fact common to all Being as the one example.

Human Intelligence has a very high opinion of itself in terms of its labels and

labelling, but, unlike pond-life large social organisations are founded upon a common understanding of the details and history of its social context and data, and its temporal and social reality.

e.g. 1. INFORMATION TECHNOLOGY

where x = income and earning potential.

y = individuals systemic maintenance rates - interacting systemic tolerances with the intensity of energy and mechanical attrition from the external and internal usage. [homeostatic system]

z = evolutionary potential - rate of identification and available investment for bridging activity at time1.

Within the context of the family unit where to 'have' or 'have not' systemic integrity describes the relative efficiency of the bridging activities:

Cx the family sourcing of, the emergence of, and the establishment and maintenance of the abode

Fy the financial mechanics of the lifestyle and the social placement of the abode in relation to the topography of local and non-local bridging opportunities for both self and society.

Pz qualitatively: the social life-chances of the family unit, real and implied and the precision of the self-regulatory judgements have an evolutionary potential which is either 'realised' or 'not realised' at time1.

In human society, capital is the chemistry of human and social growth and evolution. In the Adam Smith model [1776 CE], the best tools, artefacts, products, information and the most efficient bridging activities release the best social [and chemical] energy and capital supply.

The same model of: Container, Function, Product in the language [G] can also be applied to other essential and functional attributes of human and physical society. In the last example: the integrity of the tripartite system in [TRE] was endowed by the presence or absence of capital in relation to social function. Further successive and highly detailed social modelling can be constructed by nesting; social roles, occupations and functions within social classifications of Bridging Activities. Society can be generally modelled using the Universal Organic State Model or Universal Process Archetype [UPA] and its linking model that joins and models activities between the different scales of interactivity.

1.34 Social Modelling with TRE

If all physical systems can be modelled by a TRE database and knowledge can be represented in terms of Tripartite Propositions and three-ness and its six attributes, then from this it is possible to engineer knowledge about social structures and its internal and external competition using the same knowledge representation system.

Warfare, economic or military, is the struggle of two competing systems. Big or small, both systems have a relative interest and identifiable interface - though often, perhaps not any real competing socio-economic interest or identifiable rationale to any competition.

e.g. According to Seldon and Pennance's 'Dictionary of Economics' edn.2. 1975, Dent, ISBN 0460030280, p.33 .. 'Blue Book' is a colloquialism for the Annual National Income and Expenditure prepared by the Central Statistical Office following the closer attention paid to macro-economic statistics in wartime government.' According to Timothy Good's 'Above Top Secret - the worldwide UFO cover-up', pub.1989. ISBN 058620361, p.30 refers ... 'Captain Edward Ruppelt, former head of the US Airforce Air Technical Intelligence Center's 'Project Blue Book' at Wright-Patterson Air Force Base reports that 'two RAF intelligence officers who were in the US on a classified mission (in 1952) brought six single-spaced typed pages of questions they and their friends wanted answered.'

The TRE socio-economic model.

As has been previously stated, an organic and self-regulating system with these 48 systemic events or processes from its 3 zones has two issues to contend with.

i.e. The Endo or endogenous, internal aspects and, the Exo, or exogenous aspects of the situation.

1. regulation of its core self. [@f] \$ [@g] ENDO
2. regulation of its self in relation to its contextual
tolls. [@t] \$ [@d] EXO

The empowerment of the e.g. 48 aspects of business is enabled by the ruling executive who must drive their policies through the transactional and feeding gradients of the business that they rule - whether at government or corporate level.

Each of the three zones having (minimally) their own 8 [ENDO] and 8 [EXO] aspects.

In each corporate zone and indeed between each corporation and another competing corporation etc, there are 2 different aspects of power law relativity at work.

One that directly relates to competition and financial growth, [f] and also a corporate factors material toll that directly relates to providing and servicing factorial response to contextual economic damage and, also to the reaction and reassembly of the factorial production investment worn and torn at the edge of contextual economic and global financial chaos.

As the corporation profits and feeds itself and grows more resilient, elastic and competent, the less and less it will outlay on normative systemic disintegrity as it less and less surpasses its structural thresholds for normative contextual stresses and damage.

[f] profit feeding increases and sustains the factorial activity of [g] growth. The system draws on and supplies numerous resources to repair economic damage whilst feeding and growing causing balance of payment disturbances [t]. These resources are sent to control, repair and regrow/re-emerge systemic disintegration against the backdrop of global economic chaos and competition [d].

As the corporation successfully progresses and grows, challenges to its material supply, turnover and profits and hence integrity 'naturally' increase with time, and these require systematically researched investments to control.

The more market and production investments increase, the better the system, but the more damage investments increase in reconciling balance of payments deficits created by more global factors in economic competition, the worse the financial health of the corporation. [f] feeding investment and [d] damage investment are inversely proportional i.e. [f] \$\$ [d].

The Corporate Model.

local market [f] \$ [g] local competitors	Endogenous
global entropy [t] \$ [d] re-investment	Exogenous

i.e. as global economic entropy increases, local market shares diminish in inverse proportion: [f] \$\$ [t]

Nation States with competing interests, legislative attributes and 'traditional' variance in product quality are relatively chaotic contributors to a globalist market and also possess relatively entrenched attitudes to change and new growth.

'The reason that Hobbes gives for supporting the State, namely that it is the only alternative to anarchy, is in the main a valid one.' [Russell B, 1948]

' .. Another point in which Hobbes's [1651 AD] doctrine is unduly limited is in regard to the relations between different States. There is not a word in Leviathan to suggest any relation between them except war and conquest, with occasional interludes. This follows, on his principles, from the absence of international government, for the relations of States are still in a state of nature, which is that of a war against all. ' [Russell B, 'The History of Western

Philosophy', pub. 1948, Allen and Unwin, p.578].

Industrial and organisational psychology as per the rock group 'Pink Floyd's classic from the Album 'Dark Side of the Moon' has it that the managerial ethos has a system of rewards for co-operative behaviour.

e.g. '.. come in here dear boy, have a cigar, you're gonna go far, you're never gonna die, you're gonna make it if you try, they're gonna love you ... we can make it into a monster if we all pull together as a team ... and did we tell you the name of the game ... it's called riding the gravy train ...'

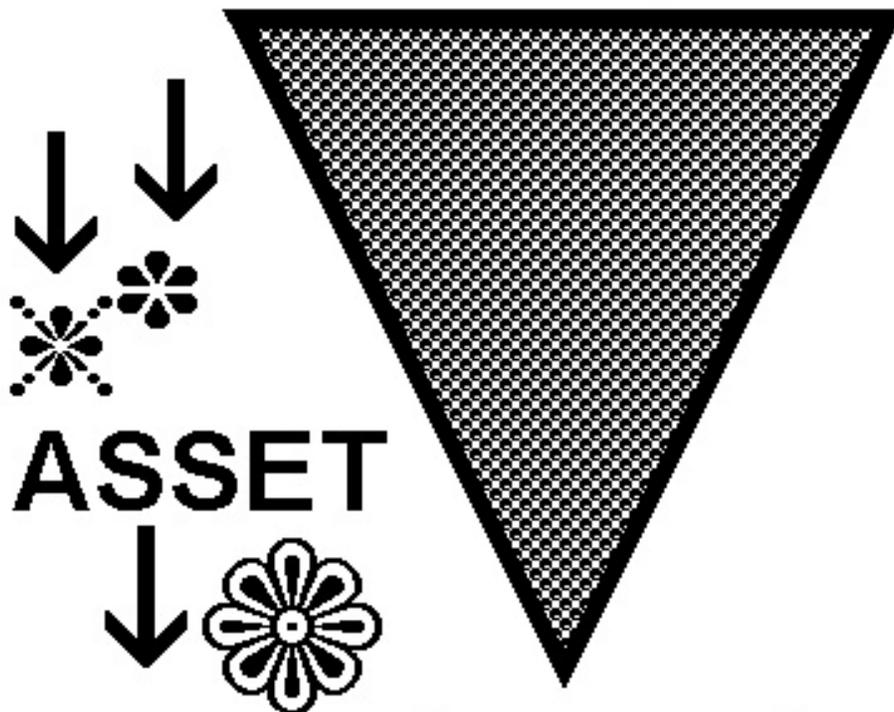
SOCIAL SYSTEMS HAVE 3 ATTRIBUTES.

1. macro [BA]: extraction, manufacture, distribution
2. meso [BA]: supply & demand, accountancy, stores/storage
3. micro [BA]: research & development, regulation & policy

In the context of personal contribution, these should bring personal and social returns at all levels of specialty.

In the context of the natural 'inverted emergence pyramid' seen in other natural [T] models e.g. biology, massive macro supply down stable and established socially constructed bridging gradients transfer contextual assets into both personal and social integrity.

macro simples



emerged complex

However, it can be seen that the more effective the resource macro aggregates and the more effective the choice of social bridging activities that can be deployed as; tools, artefacts, information and qualitative analysis in temporal necessity, the more productive and self-regulating and persistent the society and the individual.

As efficient social tools and strategies progressively increase with time, they create 3 linear growth phases that increase by both internal and external capacities;

In the variable context of an enabling surplus in a static invested store and from a socio-centric perspective the causal and driving engine of society is both military efficiency and integrity.

The available structural and mechanical capacities of the social niche within a greater environmental context of supply must be able to create and defend investment storage external to the niche during the establishing phase in which the initial store is deemed contextually viable.

'.. along time ago came a man on a track ... and he put down his pack where he thought it was the best, he never looked further he never looked back, and

built a home in the wilderness .. and that dirty old track .. was the telegraph road.' [Dire Straits, CD, 'Love over Gold', song: 'telegraph road'. c.1980] the competitive pioneer spirit though took a 100 years to legislate for the attenuations of racial divisions marching through Alabama and 'sweet Georgia Brown', long after the uncivil war stopped with the Gettysburg Address. The battle of Gettysburg 1863 .

In the 19th and 20th Century, however, the protestation about Kings was as assertive and terminal as in the Middle Ages. 'Dieu et mon droit - God and my right'. Divisive ructions over Gold had 'not changed since ancient times' [Knopfler, Dire Straits.c.1980]

'Now gracious God, he saves our King, from him good life and good ending, that we on earth may safely sing .. vitoria' [Maddy Prior, June Tabor, Agincourt carol, la route au Beziers'. 1988], 1415, Henry V resoundingly defeats French Noble heavy armoured cavalry with working class English longbow archers at the battle of Agincourt beginning a whole new millennium of problems for working class illiterate holiday makers from the UK.

The social niche must then acquire and exploit other available and initially unavailable resources within the environmental context by use of its intelligence, tools and social constructions.

'join the union while you may, don't wait 'till your dying day, that may not be far away, you dirty blackleg miner.' [Trad. English, 'The Blackleg Miner'. c.1930]. Working for the King's Shilling was always expensive both home and away however. 'when we landed on the shore and saw the foreign heather, we knew that some would fall and would lie there forever .. when we came back to the glen our houses were burnin', our goods lay in the snow ... [etc], I will go, I will go, when the fighting is over, to the land of my birth that I left to be a soldier, I will go, I will go. [Trad. Scottish, 'I will go, I will go', c. 1800], More subtle Guile and Mystique is also a good sales pitch for social co-operation. ' .. and was Jerusalem builded here, in England's green and pleasant land ... [William Blake, c.1800], although the answer was obviously no, those assertions did drive a large black economy in secret society trading ventures. This plus the re-assurance to the newly entrained and privileged that 'a man was a man for aa that' [Robert Burns, 1786] created a cooperative secret army for deniable attenuation by elites in times of social disorder.

Social and elite performance can be put on a linear bi-octal scale.
[T] description of a Society in a Socio-centric Context of static invested surplus.

(integrated I or disintegrated D)
(internal I or External E)
(B Bridging Activity)

1. macro defence D defensive co-operation
2. meso storage S structural facilitation of activities
3. micro acquisition efficient, persistent, adaptive [B]

these three above are either D – disintegrated or I – integrated and are either part of the system’s internal I or external E

In terms of [T] Relativity, the tripartite description of a viable and integrated society and a relatively disintegrated one would produce 16 phases or kinds of static social structure at time1.

The Language [WS] at time1 set of 16 social activity descriptions that incorporate integrity or dis-integrity of; defence, storage, bridging activity first of internal then of external functionality.

time1 defence internal integrated	defence internal disintegrated
time1 storage internal integrated	storage internal disintegrated
time1 [BA] internal integrated	[BA] internal disintegrated
time1 defence external integrated	defence external disintegrated
time1 storage external integrated	storage external disintegrated
time1 [BA] external integrated	[BA] external disintegrated

The Language (Tripartite Proposition) [WS] at time1. [social ability]

the social ability rating scale is the closed set :

[WS] = [ws01, ws02 ... ws16]

	ws01	ws02	ws03	ws04	ws05	ws06	ws07	ws08
MACRO	IDD	IDD	IDD	IDD	IDI	IDI	IDI	IDI
MESO	ISD	ISD	ISI	ISI	ISD	ISD	ISI	ISI
MICRO	IBD	IBI	IBD	IBI	IBD	IBI	IBD	IBI

	ws09	ws10	ws11	ws12	ws13	ws14	ws15	ws16
MACRO	EDD	EDD	EDD	EDD	EDI	EDI	EDI	EDI
MESO	ESD	ESD	ESI	ESI	ESD	ESD	ESI	ESI
MICRO	EBD	EBI	EBD	EBI	EBD	EBI	EBD	EBI

The [WS] metatheory is that with strong and persistent defence, consolidation, storage and resource acquisition - the society will grow into a large and efficient conurbation and eventually an empire. There are both new political and new material asset perimeters set and reset every day. Comparative roll-out and attainment times within and between various social models and societies will create a social measure for [WS] efficiency ratings.

e.g. time to 1st periphery at ws16
time to 2nd periphery at ws16 - policy1 goal
time to 3rd periphery at ws16 - policy2 goal
time to 4th periphery etc economic growth/decline e.g. ws15

e.g. persistence with failure and lessons learned i.e. 'The boyz gonna' work it out ...' [The Chemical Brothers, CD, Time Warner, c.2000], 'We're on the march wi' Ally's army ..' [Andy Cameron, Official Scotland World Cup Song, 1978.] the worst drubbing in Scottish football history with half the team definitely under-informed and 'off the planet' - with Alan Rough in goals.] will eventually lead to a '... city that never sleeps, where one can be a part of it .. be king of the hill, top of the heap, if one can make it there, one can make it anywhere ... New York. 'The big apple', [Frank Sinatra, c.1965], also, ' happy birthday Mr President ...' [Marilyn Monroe, c.1963], Iconic American filmstar Ms Monroe later died after the US President John Fitzgerald Kennedy was assassinated in 1963, Dallas, Texas during a period of nuclear arms escalations amongst global industrialists. Turbulent social complexity had begot poisonous ideals and compromises.

As society efficiently competes, it creates tools and solutions to its difficulties with its bridging activities [BA] and constructs and feeds from the aggregates of social macro contexts, a more complex form of social emergence under the persistent pressures of emergent physical supply and regulation. i.e. the growth of sophisticated technologies and tools will solve more and more sophisticated problems. Radicalisation and buffered facilitation of the growth of more specialised highly energised socially reactive atoms creates increasing social complexity and transitional facilitation that will emerge complex social self-regulation.

'Deutscheland, Deutscheland, Uber Alles !!!', [Official World War Anthem, Nazi Germany, 1939-1945.] lots of radical 'buffeting' and 'buffering', wearing black clothing, and a strong and empowering sense of purpose and a good eye for theatre, lighting and editorial turned Europe into a disco inferno that still made good comedy in Hollywood 50 years on ... 'Springtime for Hitler - is winter for Poland and France!' and of course, 'Don't be stupid be a smarty - come and join the Nazi Party!', [Mel Brookes, The Producers. c.1980].

The Physical Driving of Social Psychology.

The event sets in [T] and [A], of [WE] and [WS], however, do compete within a limited set of precepts, and these events are logically and realistically numbered transactions within a closed and definable set of events in a given time frame and standard of empiricism.

Civilisation and or individuals require bridging activity such that by simple electro-chemical rules intellectual, physical, psychological, electronic, biological and other material energies may release and be released to precipitate a transference gradient from any asset or set of desirable assets down a common medium.

These activities may be short term or long term.

'.. 'Ahhh, ah, ah, .. all the things I could do, if I had a little money in a rich man's world.' [ABBA, c.1970]. Subjective sensory rationale was distracted by poverty of; mind, body, education and culture in the rich western G8 industrialised nations of the 20th Century.

Large scale civilised slaughter from mythological times by the Fallen armies of Atlan 'the Grigori' [Ethiopian Book of Enoch, c.2000 - 200 BC] was

commemorated in gnostic Apocalyptic prose in many global cultures. Thankfully, many of the weapons of that ancient conflict as reported in ethnography [Rig Veda, c.10,000 BC] still remain securely hidden.

The systemic compensations to facilitate toxicity may accumulate as toxic cells in innocent social fruits like blackberries as they would naturally invest toxic strontium as heavy salts from a nuclear fall-out alongside their nutrition in emergent DNA in their berries (societies). Usefully extracted and invested in a more postponed toxicity, the blackberry bush may reduce its systemic damage at its roots by pumping the toxins from the rainwater in the soil as relatively invested radicals discarded later as bad fruit.

e.g. Eastern Religion and drug culture such as the 19th Century opium exports of the East India Company from China gradually made its way into English high society as a painkiller called 'laudanum' early c.1800's], thus drugs and diffuse Eastern nihilism found easy passage into the pseudo Greek classicism, romanticism, poetic writings and cult practises of that era. Thus the foundations and precedent for 'dropped-out and spaced-out New Age Hippies' had been laid by 1860 Victorian England and not 1960 'beach babe' California, USA. However, strong anomie as noticed by Emile Durkheim ['Suicide', 1897] created by addictive and compulsive use of placebos such as; alcohol, tobacco and other freely available substances were to play their part in the 'Social Darwinism' of the late 20th Century.

This may afford the opportunity for a more normal blackberry harvest in the future if the plant has the systemic strength and tolerances to produce sufficiently supplied seed for its perpetuity in context.

e.g. '.. the hills are alive, with the sound of music ... with songs they have sung for a thousand years ...', [The Sound of Music, Musical Film, c.1970] - the economic neutrality and environmental purity of the Swiss Mountains could not prevent cumulative industrial toxicity in run-off rain water from adjacent nation states and their badly run factories. [Ward B and Dubos R, 'Only One Planet', Penguin, 1977 , ISBN 014-921691-4]. It seemed very apparent therefore, that the industrialists responsible were more interested in financial placebo rather than the chemical variety.

The berries may be picked in ignorance and ingested whilst on the bush before its first recognisable toxic harvest F1x. This Fx can be concentrated in the food chain of systemic intellectual inter-dependencies and social organisations till the library storage, facilitative and mediating publications of the liver is digested by the more voracious eating of a new generation of emerging and driven social generation.

e.g. If socially toxic, then cultural mores will reflect in the ideation. e.g. anomie variously from Rock band, 'Pink Floyd', c.1970AD, 'who was born in a house full of pain.', 'we don't need no education - heh teacher - leave them kids alone.', 'I am an antichrist .. I wanna beeeee ... Anarchy !!!' [Johnny Rotten and the Sex Pistols, 1970, 'Anarchy in the UK'].

They may however have been planted, grown, greatly invested, harvested and socially distributed within the greater social assets such that they will cause the vital organs of systemic activity to fail and die.

e.g. Eugenic 'castration' in the name of world population reduction, poverty reduction and resource conservation

1.4 DIVINITY and TRE

In the 'Great Scheme' of things, the great sea of Cosmic Evolution produces its emerged artefacts - virus, amoeba, civilisation, computer virus, and Paracetamol for

Cyborg Lifeforms, yet the Organocentric vision of the Cosmos is one of Birth, Death and Rebirth, where, somehow reconciled with religious expectation, the ignorant inhabitant of an organic 'shell' can only hope that Spiritual evolution is going to make one's Lot a bit better.

A Technocentric Cosmological vision on the other hand may speak of Birth, the acquisition of data, the replacement of parts and the efficient access to an ever growing store of unlimited data.

All the perfection of the Human Realm may be, as Plato suggests, a vision of archetypal perfection from the realms of perpetual bliss, but, logistically, ergonomically, the realistic perception of dimensions in harmony with ones own energy tuning may still never be perfect, because the cognitive apparatus is part of an ergonomic reality that can never be perfect - It is a situation paralleled by Russell's Paradox, which poses the question about the 'Set of all Sets' - which is, that, if the set of all sets is a member of itself, then it seems that it can't be 'the Set of all Sets'.

The parallel is that if the Human Mind can map and delineate every Set in infinity as part of one cognitive process, then it clearly isn't a Human Mind, but something at least as big as Infinity itself.

The Human and ergonomic exercise to find the end of the recursive process which establishes the set of all sets would lead to the extinction of Human life in all cases.

Although knowing the life history of everything from individual sandgrains, and grass blades to each mountain and starfield in the entire Cosmos may be a bit of a taxing study for the average Human Lifespan, both singularly and collectively, the key to the uncharted oceans of information lies in the format of Universal Laws and the Relativity which binds them.

All Artefacts in the Cosmos exist as a medium through which a Macro or umbrella system discharges some force of action/empowerment to a site of evolution or competition.

The reality of eternal discharge and exchange is the relativity between

Any two related things in the cosmos - an exchange which takes place through a common medium.

The organism is an artefact through which a slowed and differentiated discharge of energy - (a demergent, entropic loss of energy to the forces of Gravity and the environment) sustains the evolution and emergence of other information processes and artefacts. [ie. feeders]

The effectiveness of the Structure and Mechanics (Meso) of the organism is an entirely Human Standard eg. a one nano-second discharge in some other Macro may have more evolutionary leverage on the teleological basis of the Cosmos than a one hundred year Human Life Span.

The human being has attached values to processes - and some of these values may not necessarily be correct.

Yet, to the irrational Human Being who in dismay dismisses the idea that we are simply cogs in the great Universal Machine which is building a Robot, what are the

standards of perfection to which we seem to refer and aspire.

Concepts such as beauty, and beautiful objects, what could these artefacts be ? and why bother make things beautiful when functional will do ?

Why should we be aesthetic when such sensitivities are punished by Entropy and evolving matter.

Perhaps these unaesthetic artefacts are born out of the need to assemble all the pleasing and thought provoking concepts of the Human Psyche in distilled chunks, and if so, is this a rebellion against the impartial mechanisms of the teleologic of the Cosmos - where the cosmos seems to finally crystallise in some final end. From where, then, do our standards of perfection come, that we find this teleology at fault and wanting.

If aesthetic Art is the 'Oil' of the Human Evolutionary Machine, we have also a qualitative appreciation of what makes a good machine oil and what makes a bad one.

How have these standards arisen from the perceptual chaos of this imperfect but evolving mechanism we call a Universe - is this the case for a Soul ?

Where does our nice sensitive stuff come from ??

If our knowledge of beauty standards is not a priori, [inborn] but a posteriori, [learned] then because of lack of reference to some perfect standard; it is possible that they will undergo a degradation within the evolutionary, telic process that refines information in worldly society, a process which tends to maximise functional capacity of the machine and information types.

In the context of social, technical and information evolution and teleologic, artforms are ideological Stress Releasing Mechanisms which reflect the cultural transition from Organic to Technocentric interpretations of the Cosmos, since, as art is a human function, it is also a reflection of Human evolution, and of the evolution of Technological and Information systems. Eg. computer games

The subliminal inspiration for art is generated as a response to stress of some kind, in fact, a response to stress is almost a biological definition of life. Thus allowing oneself to freely utilise associations generated, initially at least by sensory stimulation, chaining around associations in an irrational manner, produces the inspirational art that adds the splash of colour to a gallery.

To some, the notion of soulless, biochemical Art may be a problem because of its root in existential materialism, but that if there is some higher, more ergonomically dominant associations infusing us from some other dimension of ergonomic reality we must try to identify it.

eg. Where do all the memories of swords, sorcery and magic come from that so fill us with the fantastical vision of a cleaner and purer age, where the corruption and the laser blasters and the Cyborg pollution have not come, and where all that is needed to put things right is some willing or unwilling homely farm boy, whose virtue and bravery will preserve the idyllic purity of pastoral charm safe from the intrusion of Heavy Goods Vehicles, evil hearts and the Daleks.

What kind of escape do those visions of enchantment offer, and how have they been synthesised in the age of the machine - for instance, what clues are offered in the subliminal release from the inexorable 'pollution' of machine logic that tell us where such places are to be found within us.

We may ask the cause of such acontextual dreams.

Is it Paganism, Barbarism, Heroism, the Elder Gods, the demonic or Diversity, where the Human Psyche had time to be irrational, instead of trying to sing along in a metallic voice trying to keep up with the hard taskmaster of a drum machine to make a Rap Song.

In the terms of the Ecologist, the ultimate predator eliminates the diversity of competition, thus man wipes out the rain forest and thousands of species every week, yet, is this machine age beginning to eliminate the diversity of the Human Ideological Rainforest, and are those Big Unmanned Bulldozers going to push us out into the machine society and straight into a new set of rules in a Virtual World and Virtual Community, and are those tales of Selfless love and Naive Beauty, the dreams of the organic, going to be as extinct as some rainforest orchid, the medicinal, miracle cure for disorientation and dissolution in a machine age, too little, too late.

Here proposed is one model for Divinity and the Continuum which can be derived from [TRE] axioms.

1. The only atoms are souls, or products of the ergonomic relativity between souls or souls and God..
2. All substance (Dimension) is the product of the relativity of souls.
3. Souls/products are maintained and persist by direct causal harmony with the 'First Cause' or God.
4. Souls form contributions to Continuum substrate, given a suitable Macro or umbrella, but some souls may tend towards a binary partner or group of souls by e.g. manifesting valence or polarity. [sea of souls, flocks of birds etc e.g. Psalm 139]

5. Each Binary or Monad has the potential for unlimited Continuum participation in the 'Family of Souls'.

The Metachemistry or Metatheory for the interaction of souls, could be like that of the chemistry of attraction of the Periodic table of Chemistry, where, various complex molecules bind and are attracted to one another by primary, secondary and the more complex Van Der Waal's forces (Tertiary), where complex binding produces sophisticated structures. This molecular idea is probably what the potential for a soul group relationship looks like from outside of the time it takes place in - the potential for a complex chemical reaction and bi-product.

In the realms of Esoteric Science, the unacceptably irrational depictions of the monks in the monasteries of Tibet have a similar story to tell.

The Mahatma letters to Sinnett in the period 1880-1884 give a similar 'chemical' account of Cosmogogenesis ' *For the potentiality which develops finally in a perfected planetary spirit lurks in, is in fact that primordial cosmic atom. Drawn by its chemical affinity to coalesce with other like atoms the aggregate sum of such united atoms will in time become a man-bearing globe after the stages of the cloud, the*

spiral and sphere of fire-mist [this could be a physical description of the physical and telic process of star-genesis within the laws of three dimensions of space and one of time] - and of the condensation, shrinkage and cooling of the planet have been successively passed through.'

The Eastern theory of Karma in the context of the Continuum may be that during each interaction the Soul shapes its valence, polarity and structure, and that that in a sense befits it for interaction with a certain other opposite, thus through this continual process of shaping and change, the symmetry of seeking opposites is endless, although it is reasoned that some Soul - Compounds must pass through a transitional and intermediary reaction to complete their journey to site of reaction.

Souls are of the First Order of energies - yet having emerged from the source - themselves broadcast and contribute to a sea of soul energies.

This Second Order is a continuum - a meso substrate, yet the knowledge we have of each pair, mostly our only experience of bonding or event is through subjective participation of a Third Order nature.

Where we all play together in this eternal garden - though some souls or fish from the garden pond may accidentally get out of context and land on the patio - we must for that reason be respectful and attentive gardeners.

Such is the nature of relativity and subjectivity that the personal artefacts and experience, plus the contribution of other souls in the garden of the continuum ensures an innovative endlessness to the properties of creation and experience.

There may be persistent classes of structure and society and hierarchy within the phenomena of third order relativity, such as certain themes in the 'symphony of structure' - 'Harmony of the Spheres' each a new composition and artefact in the minds of creation, the creators and of 'God'.

These may return to civilisation - evolutionary processes, ethics and philosophy, or alternatively may be fashions indicative of certain groups and classes of soul.

Although chemicals tend or emerge towards nurturing platforms which have equilibria through which energy may be harnessed and systems evolve; the fine chemical details of Human Society depicts chemical substances in many forms that are bad for nurturing, human and biological processes.

These 'bad' out of context chemicals can give us a very hard time, as would any out of context soul chemistry.

The telic process of information evolution and emergence in the material universe would be paralleled in the Soul Universe by soul groups forming bonds and making themselves into specialist tools of creation and complex artefacts.

The needs of the material universe to emerge and evolve artefacts from the basic substances may not be as welcomed by the evolving soul population - as their relativity becomes crystallised, stagnated and ossified in more permanent and unmalleable formats.

Much in the same way as the competitive and aggressive civilisations stream themselves into tight ideological formulae for the process of Capital and Empire, at the expense of genetic variation in the gene pool . Thus diversity is seen to diminish as the robot and the biological wasteland become a reality in the denser planes of duality.

Groups of soul molecules are thus being formed or are forming into artefacts by another perspective - we can't see it, but teleology [evolution towards an end based product or goal] gives us a model, and the universe is enriched by new forms and new processes by the skill and enterprise of group souls.

In this energy environment, individual souls may mediate or buffer actions and reactions, and much in the same way that Earth has a biased local Periodic Table of Chemistry, many soul artefacts, ideas and transactions etc would be out of place in a planetary culture based in six senses at the most.

A Human group soul may also have its own telic ontology, [end based inner consistency] where the chemistry and tapestry of information and moral priorities shapes the emergence of something noble (one would hope!)

The concept of First, Second and Third Order energies, Emergence etc can be traced a long way back in Human History, to the Ancient Hindu writings in Sanskrit from 10,000BC.

However the 21st century scientific basis of this ancient tripartite knowledge representation system is Chaos Theory and Emergence Computing, and hence theories such as free energy and an incredible antigravity particle physics.

The Emergence pattern of the Hindu Triple Cosmos is as follows:

1ST STAGE	2ND STAGE	3RD STAGE
3RD LOGOS	2ND LOGOS	1ST LOGOS
BRAHMA	VISHNU	MAHESHA
THE CREATOR	THE PRESERVER	THE REGENERATOR
1ST OUTPOURING	2ND OUTPOURING	3RD OUTPOURING

Creation of Raw Materials	Evolution of Vehicles	Unfoldment of consciousness
FOHAT (AGNI)	PRANA	KUNDALINI
ENERGY	LIFE FORM	SPIRIT SOUL

Basic orders of matter

MATERIAL EVOLUTION BIOLOGICAL EVOLN. SPIRITUAL EVOLUTION

i.e. From the Macro of the First Outpouring, evolutionary vehicles (Meso) are created from which emerges information processes in the first logos - the emergence of consciousness.

The parallels between [TRE] METATHEORY and the Ancient Hindu go right to the foundations of the formalism of the 8 essences themselves

i.e. they go into a rational and programmable unifying theory of relativity.

Here are some archaic Theosophical descriptions - which are some of the basics of Tesla's theory of Environmental Energy and my Tripartite Theory of relativity. This is Chaos Theory and Emergence - and it is taught in Illuminati 'Secret School' Universities as top secret degrees - not to us though.

In the unmanifest logos, their reigns the totality of absolute Parabrahman (First Cause). On this tabla rasa, the polarity of point Mahabindu and its boundary Mahahasa set the context in which the first and primary differentiation of reality emerges, that of positive and negative polarity - +/- Father/Mother, Shiva/Shakti

The Second Differentiation of the unmanifest Cosmic Logos is in the imposition of an identity and hence the creation and delineation of a system other than the two present poles, which incorporates both poles. (next Logos)

The polar attributes of this identity are Mahesvara and Visvesvara - self, non-self and this interposition of identity creates the cross - the concept of cosmic identity in the ever unmanifest whose motion creates the manifestation of matter and the Three part relativity of the eight essences are generated from which emerge the paradigm that the Cosmos can be described by wave theory and octal mathematics, the music of the spheres, harmony and relativity - and free energy.

Planet Earth has produced many belief systems and Faiths, paradigms and revolutions, works of deceit and cleverly contrived and presented spiritual toxicity, but the greatest things we ourselves have done are evident in our own spiritual journeys back to the Source and Father of all Life. On that journey, most of us have had to walk a rocky road laden down with the burdens and disease often caused by the activities of others.

We will meditate on freeing ourselves from these burdens and attachments and often when we do detach our mind from the world our being grows as a result.

Often though in the regulation of massive populations and their social and logistical issues, their infrastructures and social fabric, manufacturing and industry and other issues around maintenance and supply of those huge ships we see around Saturn etc at their own home ports and cities, it isn't merely sufficient or responsible to say to experiencers of social distress ... 'chill out'.

The central message of Christianity, from the gospel with its new Covenant; i.e. to love one another as ourselves and love ourselves as we love God, is the key and central reality of the physical and tripartite exchanges within and between every living life-form at any scale or complexity.

It is a basic fact that every self-regulating biological and indeed physical and chemical system in time space has two aspects.

The first is its internal integrity – its endogenous engine that maintains it in a functional state, and the second aspect of every biological system is its ability to extend into and apply itself to the external universe – i.e. Its exogenous component.

Nature and its biological organisations at the level of cellular biology in e.g. plant and animal cells operate with this dual aspect of a balance between external and internal operancy and integrity and the process is called Osmosis.

At the level of the chemical, this consistency is regulated through membranes and enzyme transport systems and organelles and nuclei and the operation of osmosis and movement of salts and sugars and water from a place of high concentration to a place of low concentration. This basic model can be used to demonstrate an analogy for the flow and regulation and manipulation of civilised love amongst beings by artificial social processes, morals and ethics, tools and relationships.

Evolved civilised beings, invested in their minds and mentality, function and persist according to the natural and universal recipe for life and merely have to mimic by artificial constructions in their complex mind-sets and intellectual and ethical investments, the two part behaviour of the natural and biological universe.

Under severe duress this is a challenge.

This simple truth of a 'divine osmosis' can be heard taught by Christ.

Mark 12:29, 'Jesus replied, This is the first .. 'Listen, Israel, the Lord our God is the one Lord, and you must love the Lord your God with all your heart, with all your soul, with all your mind and with all your strength. .. The second is .. You must love your neighbour as yourself. There is no commandment greater than these.'

Seeing the absolute truth presented thus, Society and Civilisation in its artificial constructs either must embrace a natural model for organised life that always works the universe over – or it will choose loveless and empty death.

No plant cell, for example, that empties itself and surrenders everything from its store can survive without re-supply. If all it does is empty itself it will become nutritionally bankrupt and be unable to re-energize its house-keeping and maintenance chores and will then cease to function and live.

There is no such thing that lives biologically the universe over that totally empties itself.

Some Eastern philosophies promoting emptiness speak of ultimate dissolution of the soul into a soup of energies and materials.

The natural biological model and recipe for life though is that every component of every cellular organisation at either the level of plant or civilisation maintains its internal integrity and because of this, is also able to extend and apply itself externally.

Thereby functioning naturally.

At the level of biology and chemistry this is called homeostasis, but at the level of the human soul it is called self-respect or self-love and this soul can then extend to and supply other souls in equal measure.

The message of Christ for us is that a Kingdom of Holy Spirits, Saints and Angels that extend through many mansions all the way up to the source is all connected to us by the power of love that binds us all together, and that in this unity we operate this anthropomorphic Kingdom and family as if we were a fruit-bearing Vine.

JOHN 15. 'I am the true vine, and my Father the vinedresser. Every branch in me that bears no fruit he cuts away, and every branch that does bear fruit he prunes to make it bear even more. You are pruned already, by means of the word that I have spoken to you. Make your home in me, as I make mine in you. As a branch cannot bear fruit all by itself, but must remain part of the vine, neither can you unless you remain in me. I am the vine, you are the branches. Whoever remains in me, with me in him, bears fruit in plenty; for cut off from me you can do nothing. Anyone who does not remain in me is like a branch that has been thrown away – he withers;

These branches are collected and thrown on the fire, and they are burnt. If you remain in me and my words remain in you, you may ask what you will and you shall get it.

It is to the glory of my Father that you should bear much fruit.'

In biology, therefore, the vine is fruitful because the cells do not cease to operate by emptying themselves and dying, as they both give and receive and withhold for their own use some loving life-giving love or water from the source.

In Eastern religious doctrines as espoused by e.g. Theosophy, the Source is a tripartite proposition e.g. from the Book of Dzyan in the 'Secret Doctrine' Volume 1, the Logos, a high energy, light filled place from which there are outpourings and then fruitful vehicles. Indeed this Creation mechanism is mirrored in the book of Genesis in the Old Testament.

Like many religions on Earth, the Christian Holy Trinity can be put in the form of Macro – Father, Meso – Son – [the pattern and structure], and Micro – The Holy Spirit, the evolutionary vehicle or asset for humanity via God's Will and expression and in conjunction with the Saints and Angels.

1 Timothy 1:16 |

'.. Jesus Christ might shew forth all longsuffering, for a pattern to them which should hereafter believe on him to life everlasting'.

This 'pattern' therefore for exemplary human life is one with which all pilgrims on the Way of Christ may resonate, and by doing so draw life from.

Our high energy source therefore cascades a harmonic series of loving energy down into increasing densities of vehicles in spirit and matter.

The Mathematical and Chemical Materialism of Peter Plichta is very relevant here – for as surely as unstable radio-active elements decay down to stable isotopes of lead by tripartite means and processes e.g. alpha, beta and gamma radiation, so too must

the soul of the Pilgrim not fall down into that same basic threeness in the world of biology and its basic hormones and psychological states.

In the same way that Buddhists ask that we detach from the world so that we do not become entangled in it and drawn into it. Detachment as release from desire and consequently from suffering is an important principle, or even ideal, in the Bahá'í Faith, Buddhism, Hinduism, Jainism and Taoism.

God our Father loves us so much that he would send his beloved first born into the deeps of matter to become human – to entangle with and encapsulate his massively powerful, timeless, high-scale clear vision and capacities into a dense and corrupt, slow moving living death to redeem us.

John 3:8

The wind bloweth where it listeth, and thou hearest the sound thereof, but canst not tell whence it cometh, and whither it goeth: so is every one that is born of the Spirit.

It could be therefore that believers in such detachment from 'worldly things' may be less likely to respond to the innate 'programming' of materialism.

That the Christian message has come from a high-energy paradigm is borne out from the testimony of Saints over the centuries who testify of miraculous healing and molecular re-arrangements and other events that are beyond the ideas of our notions of; physics, gravity, medicine, time, reason, consciousness and light.

Christianity embraces all beings who do the will of God as our brothers and sisters - all beings who keep the simple two-part Covenant of the Way of Life.

This new Way of Life or 'new Covenant' is thought in the Judaeo-Christian Tradition to replace the older versions made by God.

Hebrews 8:13

In that he saith, A new covenant, he hath made the first old. Now that which decayeth and waxeth old is ready to vanish away.

The message of the truth of 'divine osmosis' and the 'divine tripartite' contained in Christ's message may travel further amongst the stars because it actually has an empirical and scientific basis and is the truth of a universal law seen clearly in all biological life.

All and any civilised biological life that has ever modelled its own cellular processes for industrial, environmental or medicinal reasons will recognise Christ's Universal truth.

Our brothers and sisters from everywhere in the universe that can recognise the implications of a universal law might then wish to talk with us and to begin to share a great many things.

As people, we may have many more new friends to meet on the road.

I would rather have a cup of water from my brother an Octopii than a toxic chalice from a sweet looking blonde.

In keeping with the time-honoured tradition of Philosophy and Philosophers, here presented is - an exploration of Soul Ethics – these propositions are called;

THE GRACES OF EVOLUTION,

and represent a core of ethical belief which is thought by the author to be central to the founding of a Civilisation from fragmented factions, the undernourished, under-loved and undereducated.

It ends with a few general rules for the interaction of the Human Race and Human Civilisation with Extra Terrestrial or, Ultra Terrestrial Life-forms, and seeks to give guidelines on the dangers of ignorance and lack of recognition.

THE GRACES OF EVOLUTION .

1. The Soul and its Light is the highest gift of God's Creation.
2. Love, Dignity, Honour and Creation are its fruits.
3. No Tradition is greater than the Tradition of Love and Brotherhood inherited from God's Grace.
4. Variation is created by the gift of Life and the enactment of Love and Brotherhood amidst its suffrage, and is the Cornerstone both of Civilisation and of personal evolution.
5. The evolution of Civilisation creates Traditions and Cultures, but no fragment of Humanity can claim ascendance on the basis of manufactured rights alone.
6. Ascendant Humanity has the highest state of Grace, and all Tradition that does not reflect the above-mentioned highest Human ideals, should not be carried forward into the future.
7. The Cultures and Traditions of Humanity are not all good.
9. The Tradition of Culture can be a celebration of Human creation and variation that is not made base by the presence of soul Failings.
10. All Humanity can benefit from the varieties of established Culture, but not from all the psychological associations imposed upon Culture.
11. Traditions have Geopolitical and resource-orientated decisions incorporated into their motivations, and often incorporate displays of territoriality and insult.
12. , however, it can embody and celebrate the unique Geographical variation and education derived from local environmental artefacts and conditions, and the dignity and suffrage and love which binds fraternity under these conditions.
13. The structural endowment of Tradition, its continuity, form, stability are a parallel and necessary umbrella for growth and evolution, whilst,
14. A New Temple of Tradition should be built from the Old: a vehicle for future Human Evolution, untouched by the bias of History or Elitism, built upon the Cornerstone of Fraternity -
15. It is the Temple of the Soul built upon the Tradition of Love.

THE (NEGATIVE) TRADITION OF ELITISM .

16. The endowment of limitless variation on a theme, and the capacity for creative synthesis with it is God's gift to individuals.
17. The synthesis of Society is both a logical and spiritual priority.
18. Society provides a secure umbrella for creativity and consciousness.
19. The exclusion of variation and creative synthesis from society is Elitism.
20. Elitism is usually justified in terms of 17. ie. being a stronger aid to social synthesis and evolution, and, a social necessity.
21. It follows in terms of Elitism that; Society must not be permitted to provide a secure umbrella for all forms of creativity, and from 16; -
22. All individuals are not endowed with discernible gifts from any Good God.
23. All souls honouring; love, dignity, honour and creation are not included in any or every elite.
24. The creative synthesis of both honourable and dishonourable souls are excluded from an Elite -
25. Some creative synthesis is more valuable than other creative synthesis.
26. All valuable creative synthesis takes place within an Elite.
27. All creative synthesis that has substandard values together with all dishonourable creative synthesis is allocated an undesirable status.
28. The evolution, expansion and adaptation of society to the limitless variation of planetary and ergonomic themes requires honourable and adaptable values.
29. No one Elite recipe for the values of consciousness is infinitely applicable to all Planetary and sub-atomic states.
30. Some non-elite values substandard to Earth's ergonomic time space locality may elsewhere predominate with excellence over a pre-conceived Elite Recipe.
31. The needs of the Race are best served by not restricting honourable creativity to the confines of an elite.
32. Elites are an undesirable Human Tradition that discriminate between Cultural attributes - and cause conflict:
3. No Tradition is greater than the Tradition of Brotherhood inherited from God's Grace.

THE TRADITION OF CONFLICT

33. Conflict is a Traditional property of Matter and organised systems, inherited by the Race.
34. The success of any organised system, its coherence, stability, longevity, is based upon its competitive properties.
35. All conflict is over direct acquisition of ergonomic rights, or indirectly, over 'meta' - ergonomic tools (ideologies).
36. The evolution of ergonomic metatheory (socio-economic information) has or will remove direct human conflict from the arena of biological stress and competition into software and vehicles of mechanisation.
37. Metatheories are the ultimate vehicles of Conflict
38. The better the metatheory - the greater the accessibility of Stellar and Cosmic resource to the proprietor Race.
39. The better the resource acquisition - the more sophisticated an umbrella for Racial creativity and synthesis.
17. The synthesis of society is both a logical and spiritual priority.
40. With the aid of good metatheory, Biological conflict can be raised to the level of Philosophical debate, where the Tradition of Conflict is transcended by the Tradition of Love, and the Tradition of Elitism is refuted.

THE TRADITION OF HONOUR .

41. The purpose of personal life is to honour and acknowledge the potential of the body we inhabit, and the lives of our peers.
42. The potential for inner growth and balance and the outer reflections of our efforts to find equilibrium, form the basis of our personal life and behaviour and interaction with our peers.
43. Bringing our potential to the fore is to acknowledge our Spiritual, intellectual and Social needs and to recognise the needs of others.
44. The purpose of Society is to honour and acknowledge the potential of the Bodies and Spirits of the people we interact with in Society.
45. The form of communication such acknowledgement should take, should not compromise the vulnerability of others in their efforts to grow.
46. This is honourable behaviour, part of the Tradition of Love.

THE TRADITION OF BIRTH .

47. Each Child has the right to food, shelter, medicine, education and social commune.
48. Each child has a right to be honoured and loved.
49. Each child has a right to participate in the Traditions of Culture, Honour and Love.
50. Each child has the right, through education and love, to recognise and reject dishonourable Traditions (cf. Elitism)
51. Each Child has a right to learn its special place in the Cosmos and to be taught their Spiritual Destiny.
52. Each Child has the right to be given the understanding of Physical and Spiritual Relativity, for these are the heirlooms of Evolution.

THE TRADITION OF TRUST .

53. The fruits of love are the Tradition of Birth, the growth of Culture and Fraternity, and both personal and social evolution.
54. The evolution and continuity of social structure encourages trust to appear.
55. To trust is to place one's vulnerability in the hands of others.
56. To love is to nurture trust by sacrifice, example, honour and courage.
57. The synthesis of such bonds and, 17. The synthesis of society, are both a logical and spiritual priority, for in this way -
18. Society provides a secure umbrella for creativity and consciousness; an environment in which -
58. The Tradition of Trust will flourish because the Graces of Evolution are attainable within such social structure.

THE TRADITION OF JUSTICE .

59. Justice illuminates both personal and social responsibility.
60. To be Just, or to pass judgement on an offence against the Social Trust is to assess the dishonour of such an offence and determine the degree to which the Social Trust has been compromised.
61. The Social Trust is dependent on and nurtured by a Universally available structure rooted in the behaviour of Natural Laws of power and the consequent appearance of equilibrium, cohesion and nurture.
62. To withhold from an individual the rights to universal nurture provided by the

Fraternal/Maternal Offices of Society by singular or cooperative actions is an offence against the Tradition of Birth, Honour and the Social Trust.

63. The repair and shifting of equilibria in any elite or non-elite system must be legitimate.

64. Justice is the instigation of the most evolved form of good for the greatest period of time.

44. The purpose of society is to honour and acknowledge the potential of the bodies and spirit of the people with whom we interact.

65. Justice serves the Tradition of Love and Brotherhood.

66. Justice maintains the evolution of the Social Graces through the maintenance of universal social structures.

THE TRADITION OF COSMIC LOVE .

67. All energy is the Gift of God.

68. Some energy is unavailable for use.

69. All energy has no beneficial property (time [n])

70. Some properties of energy are beneficial

71. Some beneficial properties of energy are exclusive.

72. No beneficial properties of energy are universally beneficial.

73. There are some attractive properties worth seeking.

74. As these allegedly beneficial energies are in unfamiliar or unrecognisable formats - there are some stresses to extant human identity.

75. No format is universal, but some formats (Life-forms) are Traditional to some formally constituted media (Ergo-sphere/energy shells and processes)

76. All formats are the Gift of God.

77. All souls are the Children of God.

78. Recognition is an honourable quest.

79. Some recognition is temporarily disabled (ergonomically/structurally)

80. No universal recognition process is ever extant.

81. All variety is unrecognisable.

82. All souls are unrecognisable.

83. All Love is postulated (Assumed)

84. Lack of recognition is ignorance.

85. Indulgence in ignorance is Evil.

86. Evil is an offence against all dignity.

87. No Evil is beneficial.

88. Ignorance has no total control over a given ergonomic system/ Life-form/Format.

89. Uncontrollable energy formats are problematic.

90. All problematic formats have a useful exogenic context (elsewhere)

91. Some recognisable formats have no honour per given constitution of Format - their being out of context to the situation they currently inhabit.

92. Energy Constitution and presentation of formats is an Ethical problem, centred within the chosen media of the representation.

We may not recognise or understand who or what we see, but we

Must be relating to the event in some way for it to be seen at all.

It is for us to discern the context.

93. The Utility and ability to Love of a decontextualised life-form can only be alleged and never fully understood - thus is a greater risk to the Human Graces of Evolution - if not its own evolutionary prospects.

94. Unrecognisable constitution and representation requires a format and media with

which to communicate, although such may be dangerous to Human Society if illegitimate.

95. Some problematic Life-formats are sent elsewhere by the ergonomic/cosmic impossibility of constituting a Format in the physics of this time/space

96. Such Formats are not necessarily ethically viable in a human context.

97. Lack of social responsibility for the values and behavioural impact of such decontextualised Life-Formats is attributable to senescence and social flaw.

98. The acquisition of flaws is problematic.

99. The loss of ability and variation comes with the acquisition of flaws.

100. A Plurality of flaws is an imposed Hell.

101. The imposition of flaws on a sensitive eg. human condition can itself become a calloused and restrictive casing - which could detain human evolutionary progress 'Karma' eg. A Birth inside an insensitive 'mechanism'./Cyborg.

102. Some mechanisms are irrelevant to soul evolution

103. All mechanism has contextual use.

104. Ethics, Law and Love should decide if a mechanism can Nurture

105. Some mechanisms have restricted use.

106. All energy has mechanical properties.

107. The Nurturing Energies of the Cosmos is God's Gift.

108. The Tradition of Love, Law, Justice, Honour, Birth etc are the recognisable ethics of the Human Format.

1.5 TERRAFORMING IDEAS USING TRE

The labels we attribute to events in these domains change and differ, but they still represent basic [T] modelling in terms of nouns, verbs and adjectives i.e. object, process and quality.

In the physics and observation of physical reality are noted the binary nature of physical events and that the observed processes gravitate to opposite poles of qualitative effects.

e.g.

- combustion and growth
- fission and fusion
- entropy and emergence
- chaos and structure
- oxidation and reduction

From this cauldron of labels will emerge the product of chaos and self-regulation.

INDUSTRIAL FARMING MODELS USING MACROCOSMIC OSMOSIS AND SELF-REGULATING TRANSITIONAL ELEMENTAL AND SYSTEMIC COMPLEXITY IN HYDROLOGICAL EXTREMES.

Keywords.

Faraday, Fajan, diffusion, osmosis, centrifugal, Activity Series, transitional elements, inert elements, homeostasis, complexity, simplicity, genetic engineering, geology, oceanography, desertification, excitation responses, Tripartite Relativity [T].

Abstract.

The precepts of this paper use the basic rules of physical chemistry and biological dependency on nutritional and physical context and also incorporate genetic switches for planned adaptation of farming stock. A Terraforming model for 2 extreme hydrological environments is presented that would address the backbone issues of virgin environments that do not immediately facilitate biological life. It is assumed though that rather large ships beyond Earth's current payload capacity would be involved. [one such is modelled herein]

Stellar space contains many very large physical objects of high mass and high relative gravity with suitable physical chemistry and ecological potential for the growth of biological farming stock.

These objects; planets, moons, very large asteroids, etc may have had no previous complex biological life upon them as they may be missing several of the key attributes of an emergent biological superstructure.

The physical chemistry that would emerge telic self-regulation may be wholly or partly absent.

Without getting into the realms of rocket science however, and using the simple physical and behavioural stimuli within known Terrestrial biology and ecology it is possible to model the construction of a primitive ecosystem for farming purposes.

Breaks and switches recently created within today's genetic engineering can be used to regulate both environmental genetic mutations and biochemical and behavioural responses to the changing physical conditions within the environment.

Example 1. Terraforming Oceanography.

Liquid assets in solar systems may include excessive hydrological environments e.g. Europa, a moon of Jupiter.

In the Sol system however, Europa is too cold for solar-driven fish farming. Solar conditions are ideal for Terrestrial fish whose genetics are ideally emerged to suit; terrestrial light, temperatures and gravity and whose biological and nutritional properties are known to be regular in these physical parameters.

Under variant conditions, however, it has been modelled that mutations can and will occur.

Research by Cambridge biologist Brian Goodwin on the morphogenetic transitions of '*Acetabularia acetabulum*, spp.' indicate that Fajan's rules of chemical osmosis play an important part in the deployment of DNA descriptions.

"The gradient of Calcium with a maximum at the pole becomes unstable as growth proceeds, and transforms into an annulus and flattens towards the tip." - and then you get the whorl forming, I said as I watched a ring of schematic hairs develop.'

'For various mechanical reasons, in *Acetabularia*, and in plants, generation of form is always accompanied by growth, a continual outward expansion.' '.. [edited] .. animal embryos can generate complexity in many more ways, including outward or inward deformation of sheets of cells, migration of cells, and other means. As a result, animals can produce tremendous internal complexity as well as intricate external pattern.'

Lewin R, 'Complexity, Life at the edge of chaos.', pub. Dent, 1993, ISBN 0-460-86092-5.

'The basic morphogenetic events for eye formation are simply repeats of the basic [rules] .. such that .. 'eyes are the product of high-probability spatial transformations of developing tissues.'

'Making an eye is easy !! .. 'which is very different from the Neo-Darwinist position.'

i.e. Offworld, Terrestrial biology could get well funky.

There would be no situation in '*in vivo*' conditions where mutation would not occur.

There would be two kinds of mutational tendency however.

- a. Normative Mutation.
- b. Abnormative Mutation.

The end product of offworld farming therefore, may not be to everybody's taste or texture.

Intensive food processing therefore may render certain crops within the intensive farming infrastructure viable as assets of mass production and others inviable.

e.g. The Food Processing Industry.

In the Catering Industry, there are certain criteria for hygiene that must be met. These would include the use of sterilisation equipment and techniques.
e.g.

1. bullet frequency disruption signatures for e.g. bacterial and viral membrane lipo-protein lysis or tRNA, etc.
2. extremes of temperature and pressure and gaseous processing.
3. morphological constraints that may influence the rates of market biodegradation and also the physical tolerance of the standard packaging.

Within the material constraints of offworld biofranchise - mutations of the original filial genotype can occur because of the new factors within the physical locality chosen for phenotypic growth.

These can influence the velocity of growth, the uptake of growth factors, and an increase or decrease in phenotypic sensitivity to previously unimportant constraints on dormant phenotypic attributes.

In a large scale naturalistic ecosystem physical factors that include; stellar inconsistency, genotypic response to a new stellar spectrum, etheric and atomic inconsistency, new gravity and EM fields, new aggregate ratios of contextual atomic chemistry. Also, the physical phenotypic incorporation of scalar irregularity due to chronological anomalies caused by drastic reductions in the emergence velocities of the local macrocosm may occur.

Whatever Filial F1 profile there may have been in the original farming stock, therefore, is certain to change once it is moved elsewhere in time and space to be franchised.

The issues therefore with such produce are whether the mutation rates would be considered by market standards either desirable or viable. Unmarketable abnormative mutations that are not toxic may be wasteful of corporate resources. However, such end products may only suffer from a lack of market intelligence or scientific knowledge in food processing.

- In biological livestock there always will be issues of uneconomical pathogenicity within farming.

There are two transaction types in every and any given context that has any organismic system under observation.

These two aspects of biological self-regulation plus the zoning and its power law relativities within and between scales produces the 6 keys [TRE] systems theory archetype which will be more fully explained in these chapters and can be used to provide a framework for the behaviour of complex systems.

These common and relative transactions can be modelled using the Language [HX] and TRE syllogism.

Z = Water, M = Specific Ions, S = Plant System, Q = Physical Context, P = System Product and Emerged Asset of Scaling Exploitation.

Plant Biology sits in its ever-stressed niche 'piggy-backing' on the large-scale changes of hydrological state between the extremely salty and dense soil and the dry, turbulent and warmer air.

PLANT BIOLOGY, ITS NICHE AND ERGONOMICS

In the aggregate context where: [Z, M, S, P] % Q + [t1 ... tn.]

[HXmicro]	[HXmeso]	[HXmacro]
<i>SYSTEM PRODUCT</i>	<i>OBJECT SYSTEM</i>	<i>CONTEXT (Q~3S = t0)</i>
~2"MS ~3"MZ, t3	~1Z ~2M	~1Q ~1Z
~2"MS ~3"MP	~2!3Z ~2+?#~S, t1	~2Q ~2M
~3"ZP + (?~3S), ~3"!3MS, tn	~3M~1S, t2	~3M ~3Z, t2

The common process being exploited by piggy-back between the object system S (plant) and the context is the fact that in the evaporation of massive ground waters Z percolating through the geochemistry, from relatively large scales within the geophysical context there is a set of necessary ionic ingredients M, making progress from greater to lesser scales of magnitude. This is driven by osmosis within the soil and atmospheric conditions for evaporation.

i.e. ~2M >> ~3M at time 2

This 'piggy back' process is called a 'shuttle' and has definable ergonomic parameters. [SV].

The Plant Biology model is more fully explained in TRE Metaphysics 2.1 and illustrates the Plant making use of and exploiting massive scalar difference within and between contextual aggregates and humidity.

In offworld biofarming, there will be many such opportunities or niches for unusual pathogens.

Regular laboratory monitoring of bio-excretions from livestock will identify issues within metabolic failure and systemic integrity but would not necessarily identify unknown dormant carriers within the livestock e.g. In the human digestive tract normative commensal gut bacteria (enteric), include the genus *Escherichia* spp. Within such bacillus, however, there are regular genetic transmigrations and also viral infestations by bacteriophages e.g. the T2 phage.

Such problems in new industrial conditions may or may not be detectable dependent on the nature of the viral casing or because that in their current context the viral forms are dormant and or designated and classified or even currently performing as harmless.

The ongoing quest for biological regularity, purity and phenotypic consistency in industrial farming output is therefore a very important issue with both consumers and producers.

Given that a morphological approach to pathogen identification is not necessarily the only and best approach to take and that innate biological latency and gestation is a natural fact, then part of the aseptic approach to farming would incorporate new approaches to diagnosis and prognosis.

The fact that the livestock looks good and tastes good is not necessarily the only issue in factorial productivity.

As in the Plant Biology Model, pathogens also nest within transactions in exogenic systems. These host systems have adapted and exploited scalar boundaries and transitions within and between massive physical aggregates in a global context. E.g. 'gut parasite' - their niche amongst high scale transfers of resource in the host organism is abundantly supplied.

As has been previously stated, an organic system has two issues to contend with.

1. is the regulation of its core self. [@f] \$ [@g]
2. is the regulation of its self in relation to its contextual tolls. [@t] \$ [@d]

In the human body for example, in terms of; [TRE] and [HX], and given the context of an 'a priori' DNA script in abundance (+?, =:=), the macro, the primary intake of contextual process and energy comes into the core and viscera of the organism via the gut and lungs.

It then empowers the meso, the formative processes of the Central Nervous System, bones etc such that they drive and facilitate the assets of feedback from the cognitive senses at the periphery of the being. [modelled below]

The Tripartite description for pathogenic opportunity.

[HX,T]

MACRO	CORE PATHOGEN	[@f] \$ [@g] [self]
MESO	FORMATIVE PATHOGEN	\$\$
MICRO	PERIPHERAL PATHOGEN	[@t] \$ [@d] [context]

Mammalian livestock e.g. The genus *Bos*, the cow, or *Suidae*: - *Sus scrofa*, the domesticated pig like all organisms have; macro, meso or micro and innately possess the issue of dual expenditure to contend with. i.e. That of maintaining their endogenous self-regularity whilst simultaneously attending to exogenous contextual issues.

The size and systemic complexity of farming assets may vary greatly and so therefore will the issues of pathogenicity.

In taking a systemic and process strategy rather than solely a morphological one - it is also possible to classify and model organisms - whether a potential host for pathogens or not, in terms of their relative degrees of biological activity and complexity, transference gradients and scale.

Organisms tend to self-regulation or oogenesis.

This tendency can be described using [TRE] modelling.

The following octal [T] set, defines the conditions for integrity of biological and ecological and physical states of Niches of increasing complexity in which reside the possibilities or impossibilities for some life.

The Tripartite [T] description for relative energy transference in organismic or oogenic systems is called the [N1] set. N1 = [n1, n2, n3 .. n8]

[TRE] proposition for modelling the possibility of pathogens.

	0	1
MACRO	small	massive
MESO	simple	complex
MICRO	High Velocity	Low Velocity

Relatively increasing complexity and scale of transference gradient ...

The [N1] set. e.g. plant biology, particles, etc

n1	n2	n3	n4	n5	n6	n7	n8
small	small	small	small	massive	massive	massive	massive
simple	simple	complex	complex	simple	simple	complex	complex
HV	LV	HV	LV	HV	LV	HV	LV

Such a classification system for transference in 'Vivo', or the wild state can be modelled at time2 by combining the 64 definitives of [T] (and [N1]) with the further 665 modalities or uncertain transitions of [A] with [N1] to produce 729 possibilities in a recombinative scenario for logical modelling inclusive of modalities: where there is A to B through some common C with the intercession of at least some D.

However, [A] modelling using essential numbering restricts and limits this to finite numbers.

With 8 types of pathogenic opportunity (N1) at time1 and each zone having 2 systemic issues, there are, realistically speaking; $8 * 2 = 16$ classes of process interruption effects to evaluate amongst the relatively differentiated and performing organic in each of the 3 zones, their components, their complexity and gradients and overall within the 3 different systemic zones a total of 48 before any further instantiation as affected by interacting system parts and other power laws within the system.

The three biological zones have very different consequences. e.g. peripheral muscle nerve or central formative cognitive ganglia.

As a starting framework, therefore, the reality of these 16 physical processes within the macro, meso and micro zones of the organism will enable the classification of pathology within the unique complexity of physical structure and behaviour within each of the three zones.

In terms of a whole TRE picture for the classification of possible pathogenic processes within an organism $16 \times 16 \times 16 = 4096$ in total.

MACRO - Organic Instigator (Pathogen and Context)

MESO - Pathogenic Process = 4096

MICRO - Pathogenic Effect/Outcome

FARMING USING SOCIO-ECONOMIC AND BIOLOGICAL DIVERSITY [T] MODELS.

Biofarming without strict controls over the end product is going to create enormous difficulties.

The evolution of commensal or neutral life forms that were part of the stocks enteric activity may also play new and unwanted roles in any new ecosystem.

Morphologies may change in different physical and chemical aggregates, but the functional roles of the predator and its pathogenicity will nevertheless still target either the same predatory pathways in the host organism. The time1 picture for modelling and diagnostics produces a limited snapshot of static events within components from which to work.

The same pathogen may produce different effects within different host zones and different pathogens may produce similar effects within similar and different host zones.

With potentially thousands of effects to observe predicated on the presence of thousands of both known and unknown organisms - identifying the main issues of primary and secondary infections become important.

This is why [TRE] at time1 and its limited set of 4096 modelling/Diagnostic Processes at time1 within the empirically derived components of the stock organism. This could facilitate new levels of economic reality with farming stock maintenance and control.

The primary pathogen can create new opportunities for usually harmless organisms to produce further damage and exacerbate the problems of diagnosis and stock prognosis.

Also new kinds of pathogenic collaboration may evolve different or greater toxicity with e.g. synergy or antagonism.

However, if the livestock were evaluated and classified for their innate and initial strengths and weaknesses within feeding gradients for pathogenic opportunity - it can be possible to focus at time1 on the 48 'a priori' areas within livestock zones, tissues and structure where pathogenic activity is exploiting the transference velocities.

Similar transference gradients within the host may also be known to be in the other 2 zones and not usually associated with a pathogenic process and these could also be evaluated for contamination by 'biochemical isomorphism' between zones.

i.e. looking for similar effects at different empirical scales within other models and in other domains. The TRE computational mapping system could facilitate that.

Irregular biochemical changes as ascertained in biological excretion data may also be a prelude to either favourable or unfavourable mutation in the livestock.

For example, in a fish farm, biochemical evidence for increased growth rate and increased muscle mass may be commensurate with increased activity and systemic performance.

With the amount of nutrition both in the water and in the feed at a constant, and the numbers of fish remaining at normative levels, muscle mass is increasing. This is a desirable effect of change, and once current internal and innate systemic factors are excluded, can be ascribed to a drop in fish activity levels over a regulated period of time. Instead of quickly burning

metabolites in episodes of higher ergonomic activity docile and more sedentary behaviour will create more mass within the fish. If the fish are more active, demonstrating de-regulated behaviour and a lesser gain or loss in biomass, then increased aggression is indicative of a different effect within e.g. the Endocrine system and the Nervous System. Behaviourism has it that the endocrine system in the higher vertebrates powers the aggressive and reproductive response with cortico-steroids such as androgens and oestrogens.

In terms of [TRE] modelling, and a constant farm input, K, to the core of the mutating stock, the meso and micro of the mutated fish are now operating differently.

e.g. relative nerve and muscle activity in a batch of fish.

			good	bad
MACRO	FARM CORE	FEED, DNA, VISCERA	K	K
MESO	FORMATIVE	CNS, ANS and BONE	10%	90%
MICRO	PERIPHERY	MUSCLE, SENSES	90%	10%

A planet in a natural chaotic state and consisting of unknown conditions and indiscernible transitions and scales of entropy will present many empirical challenges to industry. Coming new into a situation that has no prior data or analysis available with which to evaluate its market uses for farming, mining etc there would need to be a bigger picture and modelling language with which to account for these many varied and unknown and complex conditions.

The languages of [TRE] are time1 snapshots for 'a priori' research and provide a logically real starting point for empiricism.

It can be seen that [TRE] modelling has enabled a potentially infinite number of untenable circumstances to be modelled where previously no substantial modelling could have been possible.

A heuristic function, also called simply a heuristic, is a function that ranks alternatives in search algorithms at each branching step based on available information to decide which branch to follow. For example, it may approximate the exact solution

OFFWORLD BIOFARM GENESIS, SCENARIO 1.

extreme hydrology - relatively simple ocean.

In terms of [N1], the defined set of niches, the oceanic state would approximate [N = n5, n6].

The F1 primary fish stock is a relatively complex organism *Salmo salar* spp. [the salmon]. It combines migratory feeding, electromagnetic navigation and location, geomagnetic and saline responses, high and low temperatures and various internal and external natural rhythms and bioclocks to precipitate its feeding and mating behaviour.

The use of restrictions within the environment of bulk salmon farming inevitably produces inviable stock through the lack of motility and metabolic

exercise, the lack of rigour in its behavioural and metabolic distribution, and its static and steady and farmed/confined environmental state renders its more globally orientated metabolism vulnerable to predation from local seasonal micro-organisms.

Other dangers of eutrophication and overfeeding destroy the virtue of the edibility within the stock.

A remote planet of suitable light, mass and suitably large hydrosphere has been located. It is a simple ocean that can be bio-engineered such that natural F1 *Salmo spp.* can be deployed and reared in bulk in a wild state for high quality fishmarkets.

e.g. LIVESTOCK RESEARCH AND BEHAVIOURAL FINE-TUNING.

F1 *Salmo, spp.* however, requires a physically tactile environment that does not 'a priori' exist in such a simple hydrosphere. The introduction of a new and competing biological surplus into this environment i.e. whole-scale primary seeding of the entire gamut of life-forms within the F1 lifecycle of the *Salmo, spp.* from its indigenous homeworld will not likely produce a workable effect in such an ocean.

Massively unregulated bio-diversity emerging new types of equilibria could produce several new and divergent ecological competitors for *Salmo, spp.* under these new physical conditions e.g. planetary and stellar aggregates etc. These new competitors would interrupt the salmon lifecycle such that the stock does not obtain the benefits of a terraformed farm.

Introducing an indigenous *Salmo, spp.* oceanic environment should be phased-in in simple stages.

The primary phase should be relatively artificially fed and supported whilst the *Salmo, spp.* bed into their new geomagnetic geological, stellar and climatic conditions.

Light conditions, and the intensity of certain light frequencies for instance, influence shoal-forming behaviour in some fish. Under strange stellar conditions, such disorientation after winter feeding and before the freshwater phase may leave them open to unusual amounts of predation. Facultative shoalers, such as Atlantic cod, saiths and some carangids, shoal only some of the time, perhaps for reproductive purposes.

Shoaling fish can shift into a disciplined and coordinated school, then shift back to an amorphous shoal within seconds. Such shifts are triggered by changes of activity from feeding, resting, travelling or avoiding predators.

The ocean floor however, contains no information that the *Salmo, spp.* would immediately or ever use, for geophysical navigation and therefore it would be important to create, in this instance, some guidance for the stock organism.

The main factors in use in this instance are:

1. the creation of a biomagnetic track system on the ocean floor for the guidance of *Salmo, spp.* migration.

2. the use of bio-engineered micro-organisms with innate Termination-Gene sequences.

In the natural *Salmo, spp.* environment, factors such as liking or avoiding i.e. (*philic* or *phobic*) various stimuli at various times interplay between the stock and other organisms in the ecosphere.

The salmon, e.g. *Salmo salar*, migrate into fresh shallow water and different lighting conditions to spawn under conditions of attrition, they may also eat fly larvae in the freshwater, but feed voraciously on other fish species e.g. the pelargic mackerel or herring, plankton such as 'euphausiids' and also some amphipods and decapods in the cold salty oceanic waters.. to build up their nutritional levels and their bio-mass such that they are sufficiently replete in metabolic activity to migrate and spawn. In a new freshwater ecology, the energy to compete, to mate, to reproduce and to return to the ocean for the new annual cycle is very much dependent on the success of the oceanic feeding cycle.

Under these wild conditions, the salmon stock, constantly washed by massively turbulent seawater is at its most edible and free of the shallow freshwater or brackish water parasites that could predate in a restricted inland farm.

Static fish farming has usually produced a docile, anaemic and parasite-laden end product.

Managing Ecological Complexity in Terraformed Environments.

Interactive ecological processes amongst new, established and emergent life processes will produce numerous new food chains and new kinds of predatory cycling between predator and prey and other natural competitors in all stages and scales of the food pyramid.

Interactivity between scales, complexity and velocity of the organic can be modelled for diagnostic purposes in stock organism using the limited set of; core, formative system and periphery. This produced the [N1] set of niche numbers [n1 - n8] that depicted increasing scale and complexity of transference.

Ecological diversity is predicated, generally speaking, on the relativity of physical and chemical co-operation between all scales of physical diversity and emergence in the ecosystem.

The core of the ecosystem or macro, the most simple and massive scales of aggregate are the basic simples that sustain the more complex and bigger predator-prey cycles.

In the predator-prey cycling models, as the numbers of prey increase, so eventually do the number of predators in the predatory population, until they eventually through sheer scale and efficiency, overwhelm the numbers of prey species, which then die off, declining rapidly. As this happens, there is less abundance of resources and the predator species competes amongst itself, excluding and eliminating the weakest predators in its own species, maintaining the efficiency of its own genotypic behaviour as it does so.

When the number of predators are reduced, the prey species, ergonomically smaller and more simple and therefore utilising faster growth and replication strategies starts again to increase in population size and abundance - as again do the predators. etc.

At this scale in the ecosystem, however, the bigger predator- prey relationships of interest in livestock farming appear more detached from the bigger environmental process.

A more global or 'continental' picture has it though, that for seasonal growth and ecological performance to improve, factors such as temperature, light, water, nutrition must become more consistent and regulated and must become stable enough to facilitate the growth cycle appropriate to the scale of the animal being farmed.

The regulatory persistence of such 'growth seasons' however, have at their root a basic physical fact. That at the highest frequencies of physical inconsistency, only the organisms with the greatest physical tolerances and fastest life cycle will grow.

In the core of the ecosystem, in 'winter- spring' as it were, frequent temporal 'stutters' in physical temperature can facilitate the growth cycles of the smaller micro-organisms O1, such that they become abundant enough to feed another layer of more complex organisms. These, O2, pushing up their numbers to a threshold population tenaciously regulated by sharp inconsistencies within the changing climate.

As the inconsistencies and sharp contrasts of growth temperatures and available light decrease, however, and biomass increases, the life cycle of more and more complex organisms O3, can be facilitated by the more consistent conditions for energy and behavioural investments in; mating, gestation and growth.

Thus the larger predators at the Periphery of the ecosystem feed on the Core through the stellar-driven formative engine of planetary physical conditions and tolerances, and geo-chemical and topographical activity.

In an aeseptic but relatively unresonant world full of natural electromagnetic insulation a synthetic migratory mechanism may be required to orientate *salmo* spp.

Using high EMF cables, a migratory track can be laid down that the salmon will recognise.

Several tracks from deep cold and relatively salty feeding grounds that constructively lead through areas of changing temperature, light and salinity such that dependent on climatic conditions, the best amenable route to a freshwater landzone can be selected.

The reality of the simple planetary ecosystem as described is of an oceanic environment with not much complex organic growth, mud or silt, but with migrating gravel banks etc deeps and shallows with freshwater processes on some areas of land that would suit the salmon for spawning.

Then, the introduction of plankton and other silt forming organisms with self-terminating genes could be introduced under conditions of massive eutrophication such that degrees of silting and organic detrius may begin to establish.

Halophilic, (salt liking), Thermophilic and Thermophobic attributes of these organisms can be used to form a discernible F1 indigenous 'bio-electrical' signature in these new waters over and within the Salmon's perceptions of the synthetic tracks.

If the planet has its own naturally strong EMF signatures in the oceanic bedrock that the salmon will frequent, then F1 silt forming plankton and algae may attenuate these circumstances.

The strategy, therefore is to ensure that the primary stock species at the top of this foodchain has an unobstructed and useable navigation system to aid its lifecycle and growth.

Salmon Feeding Grounds and other Nutritional Aspects.

The salmon, *Salmo*, will feed on small organisms and pelagic fish (PF), in the open sea. It's artificially managed feed stock though must be dependably maintained as they may pass on several environmental problems into the nutritional cycle of the salmon.

e.g. a methodological approach to these many problems may include ...

1. The feedstock (PF) may mutate, therefore innate genetic engineering in (PF) that uses a self-terminating genetic sequence (tG) in its constitution can be engineered such that the (PF) is ignoring a potentially fatal mineral in the local ocean until the genetic clock stops running.

2. The introduction of a new 'bio-engineering' mineral salt locally to the feedstock feeding grounds in the cold zone that is beneficial and good for the salmon, will cause the feedstock will terminate by (tG).

3. The introduction of a mineral salt unrecognisable to but tolerated by the salmon were introduced into the cold zone causing the feedstock to terminate by (tG).

4. The elimination of stock by catalytic high frequency irradiation that will disrupt e.g. fish cell membranes.

5. Nutrient deficiency in the oceanic environment can be attenuated by a slight and relative enrichment of the feedstock.

In this case it should be noted that biological concentration of minerals in complex systems cause abnormal levels of toxicity in the vital organs of the prey species. e.g. liver, kidneys.

The salmon and young salmon or salmonid will feed until satiety and seasonal climatic changes urge their behaviour towards the physics of the reproductive waters, and consequent physiological changes.

There may be a primary, secondary and tertiary feedstock species, or perhaps only a primary species plus artificial supplement etc, but dependably, the feeding grounds of the salmon are predictably in the open sea given that they can navigate their way there. Thus extraneous supplements are local and in the open sea and concentration recycling and distillation of minerals in feedstock do not form a part of the breeding activity or the whole of the *Salmo* lifecycle.

Should that problem occur, the feedstock could be evaluated in isolation and or terminated.

6. Other topographical cues, channels, valleys and stockpens for both the salmon and the feedstock can be created using sensitively tuned electromagnetic radiation buoys.

OFFWORLD ATMOSPHERE GENESIS & MODELLING

e.g. extreme hydrology - relatively simple low atmosphere and dry desert.

An Octal [TRE] classification of atmospheric carbon-based life-supporting opportunity and proclivity predicts;

This [T] set, defines the conditions for biological and ecological and physical states of Niches of increasing complexity and facility in which reside the possibilities or impossibilities for some life.

The ideologies of *velocity* in atmospherics refer to the speed of transference of energy in gradients between chemical simples and complexes. Where low velocity transfers are a good option for evolution.

This is called the [N1] set. N1 = [n1, n2, n3 .. n8]

MACRO	small	massive
MESO	simple	complex
MICRO	High Velocity	Low Velocity

The [N1] Set. in context of atmospheric engineering.

n1	n2	n3	n4	n5	n6	n7	n8
small	small	small	small	massive	massive	massive	massive
simple	simple	complex	complex	simple	simple	complex	complex
HV	LV	HV	LV	HV	LV	HV	LV

Atmospheric diversity, is predicated on the relativity of physical and chemical co-operation between all scales of physical diversity in the atmospheric chemistry driven by stellar emissions.

A pyramid of numbers where the most important of the scarcer life-supporting atmospheric gases supplying oxidative metabolic transport systems in carbon-based life-forms are the emerged and nested asset within a massively turbulent and stellar driven atmosphere of inert gases.

The core of the atmosphere or macro, the most simple or 'biologically neutral' and massive scales of aggregate are the basic simples that sustain the more complex and bigger reactive ionisation pathways amongst life-supporting gasses of lower volume.

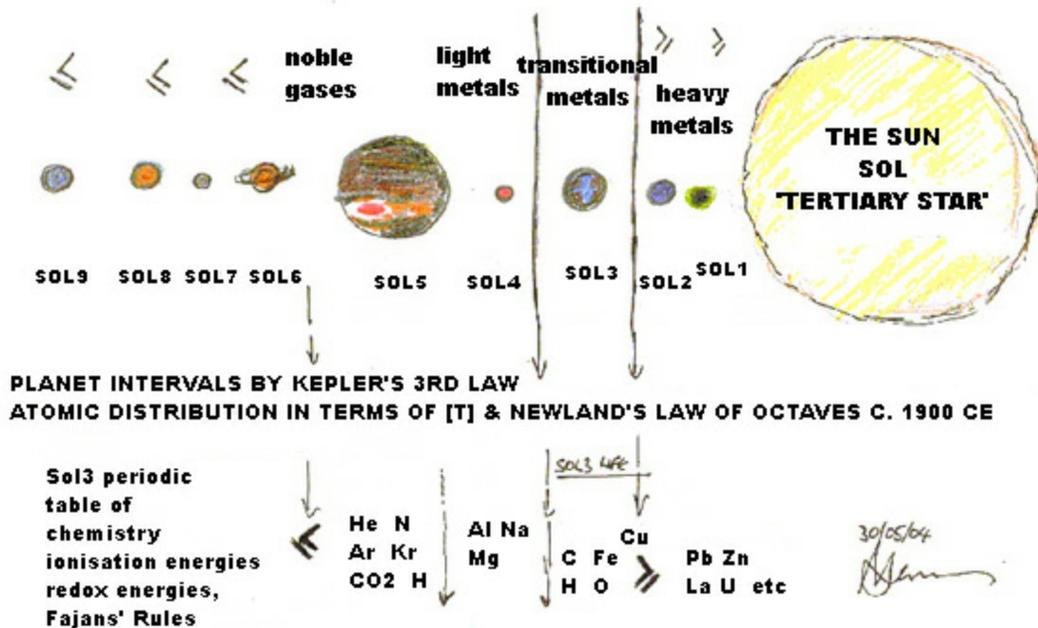
In the life-supporting ionisation cycling model, as the numbers of ionised radicals increase, e.g. ozone, so eventually do the number of biochemically useful gasses and recombinant molecules.

Variation in biologically useful atmospheric concentrations comes when stellar driving and ionisation rates and frequencies diminish.

When such energy input drops below an amount per volume of the atmospheric gas ratio, eventually the sheer scale and non-reactivity of the inert simples, overwhelm the numbers of available ionised biologically useful recombinants and the gases revert generally to a more inert state, as available driving energy and recombinant opportunity diminishes.

THE SOL SYSTEM

Atomic Distribution Theory



When the number of biologically useful molecules are reduced, the macro atmospheric aggregates and ratios, that are biologically more inert, more simple and abundant utilise their greater mass and mixing from turbulence to dilute the more scarce reactive elements.

Stellar driving starts again to increase the abundance of ionisation donors and those molecules with catalytic potential and pushes up the numbers of atomically active radicals. Again the numbers of biologically useful and reactive gasses start to re-cycle and increase. etc.

At the scale of terraforming a planetary atmosphere for the purposes of furnishing an ecosystem, however, the more biologically useful oxidation and

reduction [redox] molecular relationships of interest in livestock farming appear less possible in the bigger, inert, environmental process.

The more global and 'stellar' picture has it though, that for atmospheric growth and ecological performance to improve, factors such as; stellar efficiency, stellar intensity, planetary mass, spin, velocity, tilt, and atmospheric gas ratios, ratios of suspended colloidal rock dust etc must become more consistent and regulated.

This stability must facilitate the growth cycles of biological gases for REDOX reactions appropriate to the scale of footprint of the animal being farmed and also the unique ratios of *facilitative* gases inherent in the aggregates of the planetary atmosphere.

[e.g. in terms of ergonomic factors for a biological metabolism, including; size-mass ratio, gas intake, etc.]

If the planetary atmosphere requires relatively persistent high ionisation energies to fire biologically useful emergent recombination of redox gases and ions because of its sparse mixture and ratios of *facilitative* gas to inert gases and only receives an infrequent opportunity to create it because of cooling, dust, etc then it will likely stay inert to biologically complex life.

If stellar driving continues and persists in intensity and abundance under both stellar and planetary conditions, it pushes up the numbers of ionisation components to a threshold concentration tenaciously regulated by sharp inconsistencies within the changing stellar and planetary interaction.

As the stellar ionisation energies and available recombinants increase, *facilitative* gas activity increases. The gas and material cycles of more and more dense planetary surface chemistry G3, therefore, can be facilitated by the more consistent conditions for energy and biochemical investments in; oxidation, reduction and geological sensitivity.

Thus the *facilitative* gas activity forms part of a macro core of a biological ecosystem that is driven and fed through the activities of a stellar-driven formative engine of physical atmospheric conditions and tolerances, and ultimately geo-chemical atmospheric ratios and the activity of turbulent atmospheric mass.

In modelling new planetary atmospheres, in conjunction with accurate empirical data on the physical processes from e.g. spectroscopic scans and an '*a priori*' database of physical, organic and atmospheric state descriptions we will be able to predict atmospheric behaviour.

An atmosphere is an organic, telic, self-regulating system and therefore has two issues to contend with.

1. is the regulation of its core self. [at] \$ [ag] planet
2. is the regulation of its self in relation to its contextual tolls. [at] \$ [ad] planet and star.

[HX,TRE] Atmosphere in the Context of Stellar Driving

MACRO CORE VOLUME GASES [high inert] [@f] \$ [@g] [self]
 MESO FORMATIVE *FACILITATIVE* GAS \$\$
 MICRO PERIPHERAL GEOCHEM REDOX [@t] \$ [@d] [context]

Where the atmosphere is losing integrity and taking damage from geo-chemical and geographical and topographical interactions on the planets surface and also materials in suspension above the planets surface.

The size and systemic complexity of farming and atmospheric assets may vary greatly and so therefore will the issues of atmospheric decline. Taking a systemic and process strategy rather than solely a morphological one - it is also possible to classify atmospheres whether a potential farming asset or not, in terms of their relative degrees of *facilitative* gas threshold, their activity and complexity, their transference gradients and scale.

[T], [A] : In terms of **relative** biological knowledge an Octal classification of pathogenic opportunity and proclivity predicts;
 This [T] set, defines the conditions for biological and ecological and physical states of Niches in which reside the possibilities or impossibilities for some life.

This is also modelled by the [N1] set.

[N1] in the context of oogenic emergence.

MACRO	small	massive
MESO	simple	complex
MICRO	High Velocity	Low Velocity

in increments of increasing 'redox' [potential for oxidation and reduction] facilitation [n1 - n8].

[N1] in the context of redox gas oogenesis.

n1	n2	n3	n4	n5	n6	n7	n8
small	small	small	small	massive	massive	massive	massive
simple	simple	complex	complex	simple	simple	complex	complex
HV	LV	HV	LV	HV	LV	HV	LV

With [TRE] modelling and 8 types of atmospheric conditions at time1 in each of the 3 atmospheric zones, i.e. upper, middle and lower, and each zone having 2 systemic issues, there are, realistically speaking;
 $8 * 2 = 16$ classes of process interruption to evaluate amongst the relatively differentiated organic complexity and gradients within the 3 different atmospheric zones.

MACRO UPPER ATMOSPHERE, STELLAR DRIVING, INERT IONISATION
 MESO REDOX *FACILITATIVE* GAS FACILITATION BY RADICALS
 MICRO GEOLOGICAL AND BIOLOGICAL INTERPHASE

Integrity and dis-integrity of the atmosphere could have very different consequences. e.g. disruption and stripping by a large interplanetary mass or meteorite, or active geothermal and pelean vulcanism from the movement of continental tectonic plates. There, ongoing introduction of dust and the introduction of new geochemical aggregates could dampen and destroy the redox threshold for *facilitative* gas in the atmosphere.

The upper atmosphere and aggregates have stellar energy incoming, and given consistency, this has a feeding gradient that supplies and enables the *facilitative* gas interactions of the meso elements whilst paying its toll to systemic planetary and stellar entropy.

The 'middle' atmosphere, includes both the atmosphere in the middle strata between the ground and the atmospheric edge in the stratosphere, and also the layer in which the 'middle' or 'transitional' and reactive elements of the periodic table of chemistry (in low proportions on Earth), that facilitate the rich diversity of biology are fed and fired into radical interactivity by the more highly ionised and usually more inert gases.

This meso layer has a toll to pay to the upper macro layer of chemistry and also to the micro layer of emerged biological asset gases of the micro layer. The gases of the micro layer themselves are being dragged into energy-expensive geochemical interactivity with denser and more massively scaled and potentially reactive and interactive elements and physical features of the planetary surface.

As a starting framework, therefore, the reality of these 16 static physical atmospheric processes within the macro, meso and micro zones of the atmosphere will enable the classification of processes within the unique complexity of the atmospheric structure and behaviour within each of the three zones.

Terraforming with a High Sulphur atmosphere.

With the onset of atmospheric precipitation in a rich geologically challenged atmosphere, highly acidic or alkaline or biotoxic hydrology is likely to ensue. The biology of extreme environments however, has produced very resilient, extremophilic organisms uniquely adapted to environmental stresses. Halophilic, acidophilic etc genetically engineered fruiting organisms will deposit and concentrate their xylem or rooting uptakes in their fruiting bodies.

These will fall off when ripe to supply the new growing season's seeds with food concentrates.

This biological mechanism could be used to filter and extract high salt concentrates in soils being terraformed.

With some conditions for plant growth satisfiable, the F1 foundation crop could be sewn such that it occupied the sides of a drainage basin or valley and that when it rained, the run-off waters would wash over the crop and carry loose material and detritus into streams and rivers (temporary or permanent).

The husk of the fruiting body of this crop could be engineered or chosen to be strong and to have buoyancy compartments such that the waters would

float the salt concentrates contained in the fruit into the run-off sluices, where these could be collected, evaluated, or processed and or disposed of.

The use of primary, secondary and tertiary ecological pyramid and food-chain building at either microbiological levels or larger multicellular levels is predicated upon the fact that the secondary organism utilises and thrives on a bi-product of the first, and the third on the second etc.

Use of acidophilic and halophilic tolerance mechanisms in plant and micro-organisms to lock up and store the more toxic concentrations of salt and acids in detritus, fruit and biomass will be made with the use of genetic engineering.

The smallest, and most reactive of the likely metallic salts to emerge across a membrane and into the fruiting body is sodium.

e.g. it is high in the activity series of the periodic table of chemistry.

It may make fast progress to the outer husk of any seed, where it may form further associations with the atmospheric vapour content e.g. sulphurous acid, or form sodium hydroxide, chloride, etc.

Once the growth limitations of the fruit are reached, the transference gradient for the salts will begin to slow down and eventually cease as the osmotic balances begin to alter the transference gradients from the plant transport system.

As the concentration of sodium salts builds up, in and on the epidermis of the fruit across the sodium transport mechanism within the fruit, the velocity of sodium in the osmotic transference will slow down eventually to a stop.

These osmotic signals for 'ripening' etc have physical consequences for both the structure of the fruit and the stem that attaches it to the plant.

Fruit-cell membranes could also be engineered to withhold certain of the larger ionic salts within the fruiting body and actively or passively transport or deny access to other ions. E.g. the grass species *Agrostis tenuis* sp. Is used to colonise acidic coal shale heaps in Wales.

e.g. by virtue of fruit membrane size, potassium or sodium are potentially the smallest and most reactive of any of the metallic salts that can be extracted from the soil by the root system.

These minerals and their new ratios caused by prolonged seasonal activity of the terraforming filtration crop will assist in the creation of an environment where sodium and perhaps potassium have more direct exposure to the sulphurous and acidic atmospheric constituents.

In a more dense acidic atmosphere that is sulphurous, sulphurous and sulphuric acidic are highly corrosive BI-products of increasing water vapour levels.

Acidification of an ocean may be attenuated for example by alkaline biomass. For example plankton protozoan include the foraminifers, radiolarians, and tinting ciliates. Shells of the former two groups are an important part of the geological record in marine sediments. [Odum EP, 'The Fundamentals of Ecology edn3.', pub. 1971, Saunders, ISBN 0-7216-6941-7, Page 335].

These calciferous shells form limestone sedimentary rock under various conditions.

Their high concentrations of calcium carbonate, however, would react vigorously with any sulphurous acidic rain, whenever such rains could be precipitated using cloud-seeding techniques.

By building up successive layers of biological complexity and 'bio-chemical locking' of various minerals within the biomass, it may become possible to exploit both the atmosphere and the geology as creators of new niches in certain phases of their exposure to greater or lesser inputs of energy.

In this way the 'bio-chemical locking' continues into other micro-organism and or plant generations such that the rates of primary chemical activity are slowed down and their release back into the atmosphere and soil is more attenuated. Then greater and greater potentials arise within certain areas of cultivated growth - windows of opportunity and biological neutrality which may facilitate the life-cycle of a more agricultural plant - or animal.

From [Odum, 1971, p.332] 'One thing oceanic plankton surveys have shown is that the distribution is very patchy with concentrations of phytoplankton sometimes occurring in different places from concentrations of zooplankton.

The latter observation has led to the idea that secretion of anti-biotics results in 'mutual exclusion' of plant and animal components, but this could be partly a sampling artefact in that the smaller (and hence overlooked) zoo-plankton would be expected to thrive in the midst of an algal bloom. It seems probable that zooplankton are both attracted and repelled by excreted metabolites since they are often concentrated around the edges of blooms.'

It is also likely, that the physically smaller zooplankton create less physical drag in the oceanic turbulence and therefore under various physical conditions in seawater form their strange attractors and basins of attraction in physically different and separate localities in the ocean from the larger phytoplankton.

'The important work of Gordon Riley and his co-workers should be mentioned (first summarized in a monograph by Riley, Strommel, and Bumpus, 1949, with later work and mathematical models reported by Riley, 1963 and 1967). They found that the amount and seasonal distribution of both phytoplankton and zooplankton in any region could be predicted by means of a formula based on certain important limiting factors of the environment and physiological coefficients determined from laboratory experimentation. In very simplified and nonmathematical form the formula they devised for estimating phytoplankton production is as follows:

Rate of phytoplankton growth [μ] is directly proportional to the rate of photosynthetic opportunity [μ_p],

Predation, sinking out of effective activity zones and respiratory periods causes damage to the growth rates [μ] because the toll is directly linked to the behaviour of the physical processes within the ocean [μ] that include massive turbulence with negative results, temperature deficits, oceanic currents etc within the operational medium of the organism.

From [Odum, 1971, p.332], ' Respiration is largely determined by temperature, and photosynthesis was found to be largely limited by temperature, light, and phosphate concentration. Knowing the density of herbivores, the 'grazing pressure' was determined from data obtained in laboratory cultures. Although the computation is complex, the loss, if any, as a result of sinking plant cells below the euphotic zone

can be determined from oceanographic data.'

Riley's model from the 1960's upholds the uses of [TRE] modelling as applied to e.g. ecological systems theory constructs.

1.6 Perceived shortcomings in the current electrical engineering paradigm from a TRE viewpoint.

INTRODUCTION TO [T].

‘Some of the most interesting problems in AI have the frustrating property that there is no good way to solve them.’

[Charniak E, McDermott D, ‘Introduction to Artificial Intelligence’, pub. Addison-Wesley Publishing, Reading, Massachusetts, Tokyo, Singapore, California, 1985 ISBN 0-201-11946-3] (page 255.)

The ‘paradox of mechanical reason’ comes from the idea that reasoning on the computational model is the manipulation of meaningful symbols according to rational rules in an integrated system. Hence there must be some sort of manipulator to carry out these manipulations. There seem to be two basic possibilities: either the manipulator pays attention to what the symbols and rules mean or it doesn’t. If it does pay attention to the meanings, then it can’t be entirely mechanical – because meanings (whatever exactly they are) don’t exert physical forces. On the other hand, if the manipulator does not pay attention to the meanings, then the manipulations can’t be instances of reasoning – because what’s reasonable or not depends crucially on what the symbols mean. In a word, if a process or system is mechanical, it can’t reason; if it reasons, it can’t be mechanical. That’s the paradox of mechanical reason.’

Haugeland J, ‘Artificial Intelligence – the very idea.’ Pub. 1987, Bradford, MIT, London, ISBN 0-262-08153-9 (page 39).

The work will show that mechanical and chemical transactions have a basic and easily understood universal premise that incorporates all empirical scales of the physical process that natural language and its semantics describe and that that process is Universal within the microcosm and the macrocosm.

This chapter also identifies and illustrates the current shortcomings within industrial computing and proposes applications for these new increases in industrial efficiency and industrial reliability

THE ABSOLUTE VOLTAGE OPERATING SYSTEM [AVOS].

[AVOS] is an application of the Tripartite Essentialism that can take machine intelligence into very advanced areas.

Its construction though, even as software, depends upon distortion-free electrical engineering processes

AVOS comprises the following headings and discovery landmarks.

A new mathematical system for computational logic based upon the laws of physical chemistry.

Refutations of some current Boolean rules and circuit designs.

Provision of a new rational mapping system for electrical computations.
An increase in industrial circuit efficiency of up to 300% that demonstrates the possibility of an overloading flaw in a circuit that is designed using a Three Variable Karnaugh Map.
A bi-pass of the arbitrary strategies of Turing and Gödel.
A new non-arbitrary revision of Syllogistic form by Leibnitz.
A new and universal model of processes within physical transactions.
A new knowledge representation system called [TREES]
A new industrial process to supersede neural net modelling.
A new kind of chemically programmable assembly language.
Assembly specifications for an intelligent and fully autonomous cybernetic organism.

The most basic chemical and electrical processes can be modelled by logic.

Fajans' Rules for transaction of atoms in the periodic table of chemistry can be modelled by [TRE].

i.e. Big Atomic Donor, A, donates electrons to Small Atomic Recipient, B, through a common medium, C.

Computational aspects of Fajan's Rules will be described using tautological truth tables supplied by Leibnitz.

The behaviour of Industrial materials, therefore can be modelled at any scale of application using this simple transaction model in such domains, as; physics, chemistry, biology and the psychology of information.

Within the impurities that govern and impede such transactions the route of conductivity can be ultimately accounted for with reference to the tautological truth table devised by Leibnitz.

Leibnitz also supplied four syllogistic figures, explained below, but three of those contained the same type of error that made redundant, in my opinion, half of the rules of Boolean Logic supplied by George Boole in 1847 C.E.

[i.e. the rules of; sum, product and absorption]

Namely, the error that the arbitrary diversity of; combination and recombination of symbols when introduced, and if scaled up to more sophisticated approaches to the self and world and the world of circuit board design would cause confusion and distortion in both psychology and materials.

As in Boole, Leibnitz, if also simplified would produce a reasonable and non-arbitrary model possessing tautological truth.

Boole's Rules will be re-evaluated later such that three are discarded and three kept.

Leibnitz's four syllogistic figures are given below, but for the purposes of the AVOS System and Tripartite Relativity, [T], [A], [HX], [TREES] etc there can be only one [generic] that is useful.

Leibnitz's four syllogistic figures.

FIGURE	1	2	3	4
MAJOR PREMISE	M P	P M	M P	P M
MINOR PREMISE	S M	S M	M S	M S
CONCLUSION	S P	S P	S P	S P

[T] looks at a generic physical transaction within the objects of relativity that have been arbitrarily named and labelled; M, S, P. In the figure above, there is only one transaction modelled in terms of [T].

Although Leibnitz tackled the chaos of syllogistic theory as early as in his student thesis 'On the Art of Combinations' [c.a. 1840], the 256 'moods' predicated by the use of arbitrary arrangements of symbols in the figure above was a departure from 'a priori' mathematical reason into the world of after the fact and irrational events – or the 'a posteriori'.

In this treatise and in the [TRE] system in general, only one essential generic syllogistic form is necessary and sufficient. [It can be any one of the above four !].

Much of the mathematical discussions of the 19th Century never found their resolution amongst 20th century research and development.

Frege had perceived that taking a context-sensitive approach to syntax was important.

Wright, C in his Scots Philosophical Monograph number 2, commenting on the context sensitive ontological approach to numbers and perception by Frege, in his 'Grundlagen der Arithmetik' of 1884, illustrates that the holistic approach of [TRE] and [HX] is not a new debate within the philosophy of mind and the philosophy of science.

However, the creation of 'Essential Numbering' within the holistic relativity of [TRE] and its 'essential numbers' refers to a closed and limited set of Events in the Universe between an infinite amount of objects across a common medium of relativity in any given context between time 1 to time 2.

As the 'events' of [TRE] are always objects at some time 1, in a relativistic transaction or process, a snapshot agreed closed at time 2, attempting to classify [TRE] in traditional logicist terms may introduce confusion because it is a snapshot of change.

For [TRE] serves the function of both an 'object language and a meta language' and is also not halted by the ongoing debate of 'sign to thing signified' that invested itself in the philosophy of arbitrary labelling.

Tripartite Essentialism, [T], however, can be described in terms of a generalization method that Universally works.

Generalization is defined by Smith, R, *'facts on file dictionary of A.I. pub. 1989, ISBN. 0-8160-1595-3, as*

' a natural reasoning process for humans that is difficult to implement in a computer program. The human capability to perform generalizations and abstractions may be fundamental to human learning processes, yet generalization has not become a useful technique in A.I. as yet. For an example of generalization, suppose one knows that sparrows have wings, that eagles have wings, eventually one will believe that all

birds have wings.'

For example, resorting to the empirical descriptions of the process of flight and the reality of the biology required to achieve it would have enabled not only birds to be encoded as algorithms but also have identified other forms of locomotion in biology that do not use the air e.g. swimming penguins.

The size to mass ratio required for flight at standard gravity and atmospheric pressure plus other empirical descriptions of the operational physics of the main transit mechanism or wings, may also be applicable to the motility of deep sea fish e.g. manta rays.

[TRE] the Tripartite Relativity model can overcome the main stumbling blocks to autonomous robotics that were created by use of the 'after-the-fact or *'a posteriori'* world of labels.

The advances demonstrated here include; a new digital network concept that supersedes the neural nets currently in use, a machine code that is simultaneously an assembly language, process descriptions and systems theory, and a modular model of complex systems that can deliver autonomous function beyond the paradoxes of Turing's Recursion and Goedel's numbering issues.

However, before we can tackle the applications of the industrial compilation and assembly of TRE electrical engineering projects, we must take a look from a TRE standpoint at the possible shortcomings of the current electrical engineering paradigm.

To encode and represent general data in the world in a way that it can retain its uniqueness and be identified as coming from a particular domain e.g. in the macrocosm or microcosm, cosmology, chemistry or biology or society etc an object or 'macro and its context needs to have parameters assigned that will denote values of scale etc e.g. megawatts, nanometres, gigaWatts, milli-volts etc.

The industrial context of empiricism will gather test data on all sorts of physical processes.

e.g. 1 The Encyclopedias of; Chemical Technology, Kirk, Othmer, Chemical processing and Design, McKetta ed.,

e.g. 2 The Machine Design Data Handbook, Lingaiah

e.g. 3 IEEE Standard Dictionary of Electrical and Electronic Terms

In developing components and processes to exploit the world of objects their stresses, and tolerances, their changes of state, their conductivity, their emissions, their valence, etc and similarly data pertinent to the context in which such objects of society should be deployed at the design stage.

These ideas can be Logically modelled using conventional 'Logic gates' in the design of circuit boards and are a part of the Octal arithmetic used by Boole in the traditional Boolean circuit designs.

In current industrial designs of electrical technology, there are additional levels of

sophistication added into the decision-making process using such rules that can infer no rational outcome.

Beyond the basic logic switch circuits called;

the AND GATE

the OR GATE

the INVERT GATE or NOT GATE

the NAND GATE

the NOR GATE

are the compilation stages of every electrical design process.

The compilation stage uses 3 rules of 'Boolean Logic' that are falsifiable and according to TRE can be contradicted in many different contexts and applications. These rules do not satisfy the criteria for being Logically sound in terms of [TRE]. I assert that empirical research on current components and designs may prove them more wrong than that.

[TRE] predicts, however, that problems arise when large numbers of Logic gates are being compiled in highly complex electrical engineering projects.

The IEEE dictionary edn. 4. lists many types of electrical distortion but defines distortion as an undesired change in waveform in terms of;

a non-linear relation between input and output at a given frequency.

A non-uniform transmission across different frequencies.

A phase shift not proportional to the frequencies etc.

Without recourse to speculation on the empirical aspects of current electrical engineering performance, it is possible to illustrate big problems in using some Boolean calculus of classes to compile logic circuits.

It then becomes possible to identify that certain of the Boolean laws are currently in use in by reference to the Electronics Engineers Handbook edn. 3. Fink & Christiansen Eds. 1989 and, the main material of the faculty of Actuaries in their studies on insurance and viability of social infrastructure.

However, although, the Boolean calculus of classes is used and referred to, only the following laws are deemed adequate to construct future associations within the logic modelling – they being in line with a picture of rational equivalence within the symbolism in use herein.

The Boolean laws assumed true for [TRE] are :

1. Commutative Laws $A + B = B + A,$
 $A.B = B.A$

2. Associative Laws $(A+B)+C = A + (B+C)$
 $(A.B).C = A.(B.C)$

3. Distributive Laws $A.(B+C) = A.B + A.C$
 $A + (B.C) = (A+B).(A+C)$

These ideas depicted by the algebra above demonstrate non-arbitrary; additions, associations and shifting of permutations of classes that do not impose abstract processes onto real world objects. Nor do these processes, unlike the other Boolean rules of; sum, product and absorption, suffer from generalization problems.

The three good rules could be successfully used and employed at a supermarket it being a matter of store policy or agreement what objects could go on what shelves. The sum rule of Boole, however, that $A + A = A$ would not pass muster with the checkout operator unless A was on special offer.

Taken to the level of circuit board design though, it could be said that although logic gates are logical, as are supermarket checkouts, problems such as attempting to use those Boolean tactics at the checkouts could cause a lot of loading on the Staff at busy times.

The process of A to B through C when compiled by Boolean Rules generates various arbitrary consequences, and they can be described by a series of 'three variable Karnaugh Maps' or topically, 'three variable maps'. These have many different outcomes designated as true or valid.

Within current Electrical Engineering, the rules of Boolean algebra identified below as irrational in the [T] strategies, are still currently in use to contribute to large scale electrical engineering projects and processes.

This strategy as defined by; Fink, D and Christiansen, D , 'Electronics Engineers Handbook' edn. 3, pub McGraw-Hill, 1989, NY, St Louis, ISBN 0-07-020982-0. As a 'Minimum-Complexity Combinational Network', (page 72) .. ' The important design aim of reducing network complexity usually leads to lower cost and greater ease of construction (3-51)

'Minimum complexity may have several meanings, some of which are in opposition. A minimally complex network may be defined as having:

A minimum number of gate elements.

Some of the set of gate elements in a set of.

Fewest number of inter-connections.

Wired with fewest numbers of cross-overs on the circuit board.

Minimum total compilation cost.

Easy to maintain and repair.

Highest speed of operation

Highest reliability.

In section 3-52 of this book the logic circuits in a project are minimized by Karnaugh Mapping using two basic laws of Boolean algebra,

$X + \text{not}XY = X + Y$, which I here deem false. (It isn't true to say that if notXY that Y absolutely has to be in the remaining mix.)

$XY + \text{not}XY = Y$, which I here deem false.

Both of these assertions are predicated by the idea that whilst Y is both visible and identifiable, some other process not identifiable within the assumption that is not X, a third aspect called not X is different from being either X or Y. Cutting down to basics, the two equations read therefore ..

$$X + ZY = X + Y$$

$$XY + ZY = Y$$

Both of these ideas are used to 'minimize complexity' when cutting corners on complex electrical engineering design.

This causes problems that create both real and tenuous relationships amongst the circuits. These states are denoted, 1, 0 or D states and add up in the electronics industry as large amounts of tenuous blocks of 1's and the occasional and singular D which denotes the only logically real path for the circuit. e.g. (3-53)

These 'sums of product', 'standard sums' or 'minterm canonical forms' help simplify 'quite unwieldy large networks' (3-51).

'When a Karnaugh map is used to find a minimal representation, one tries to combine adjacent 1-squares into larger groups. Each group that can be made which is not properly contained in a larger group is a graphical example of a prime implicant – and compiled on the Karnaugh truth tables. (page 74, 3-51)

An example of a Karnaugh 'truth table' where lots of 1's should really be adding up to lots of zeros. In this process, the one logically valid process is labelled as per (3-53) as 'd' in the compilation results column labelled 'F'.

E.G. 1, 4-VARIABLE KARNAUGH MAP.

Gate	A	B	C	D	F
01.	0	0	0	0	1
02.	0	0	0	1	1
03.	0	0	1	0	0
04.	0	0	1	1	0
05.	0	1	0	0	0
06.	0	1	0	1	0
07.	0	1	1	0	1
08.	0	1	1	1	0
09.	1	0	0	0	1
10.	1	0	0	1	1
11.	1	0	1	0	1
12.	1	0	1	1	1
13.	1	1	0	0	1
14.	1	1	0	1	1
15.	1	1	1	0	1
16.	1	1	1	1	d

In this table from Fink and Christiansen, 1989, (3-53) various blocks of ones would be deemed to add up to viability.

Whereas row 1 could be deemed a logic gate called a 'nor gate or invert gate' in circuit design, it would be the 'd' in row 16 that defined a logically true relationship within that complex. If row 1 and row 16 were used concurrently, though, 14 out of the 16 selections for that electrical engineering project could be considered logically 'unreal' for the purposes of the [AVOS] project and [T] relativity.

In line with this mathematical modelling, truth tables such as a three-variable

Boolean table called the 'three variable[T] Map' can be used to describe the progress of connectivity between any two atomic points in a crystal. In this case however, it only has one logically true consequence about connectivity within and between the relativity of two points through a common medium. It is one unbroken line of logically real integrity in the relationship – independent of the consequences of arbitrary labels and assignments in an 'a posteriori' world of assumptions. That the electrovalent crystal conducts and does output is in fact 'a priori' true. It is not made uncertain by the assignment of labels that have been previously made within sum rules, product rules and absorption rules and within a three-variable Karnaugh Map.

The three variable Karnaugh map, however, currently at the heart of Boolean logic and indeed circuitry within electrical engineering concepts is only tenuously correct and approximate and introduces massive amounts of inefficiency into any circuit through the use of the rules of sum, product, and absorption.

These rules: (1. sum, 2. Product, 3. Absorption) are re-described as follows in terms of a common example from the world of social and empirical objects as produced by the world of electricity and circuit diagrams.

The electrical industry may wish to think of one-litre cans of black and white paint and their presence or absence of full strength colours.

A litre can of paint is an analogy for a Standard Industrial Unit of some energy packet. Mixing paint e.g. a one litre can of black plus a one litre can of white will result in two one-litre cans of grey paint. In terms of full strength colour being representative of the presence or absence of voltage, and using the Boolean laws of; Sum, Product and Absorption,

it can be discerned that the results with very few exceptions are not black and white. Such rules create problems that if re-iterated over a massive electrical project could lead to distortion effects within the electrical hardware from component overloading and failure with time.

The meta-language that I supply, paraphrases the use of these rules in the Karnaugh Maps at the heart of electrical engineering and circuit design. The descriptions are supplied below as analogies of the statements being made. The rules of;

1. Sum, 2. Product, 3. Absorption, are deemed insufficiently realistic for use in [AVOS] or [T] projects.

1. Sum Rules

- Sa. $A + 0 = A$ [which I deem correct]
- Sb. $A + 1 = 1$ [which I deem false]
- Sc. $A + A = A$ [which I deem false]
- Sd. $A + \text{not}A = 1$ [which I deem false]

Sum Rules paraphrased examples:

- Sa. White paint can plus nothing is a can of white paint (a rule that I deem true).
- Sb. White paint in a can added to absolutely anything else in the Universe, is always necessary for everything else in the universe that we know or can think of to continue operating (a rule that I deem false).
- Sc. White paint can plus another identical can now equals one can of paint (a

rule that I deem false).

Sd. White paint can missing enables the job of any and every painting with a can of white paint to be done. (a rule that I deem false and contradictory).

2. Product Rules

Pa. $A.0 = 0$ [which I deem arbitrary]

Pb. $A.1 = A$ [which I deem true]

Pc. $A.A = A$ [which I deem false]

Pd. $A.\text{not}A = 1$ [which I deem arbitrary]

Product Rules paraphrased examples:

Pa. White paint can goes nowhere and can never leave anywhere for any reason or agreement. (a rule that I deem arbitrary and circumstantial).

PBS. White paint consignment, can A, applied to one job is a job painted white. (a rule that I deem true.).

Pc. White paint poured into a full can of white paint, whether a millilitre or metric tonne fits into the same tin. (a rule that I deem false.).

Pd. White paint, when mixed with absolutely anything in the universe that is not white paint is useful for a paint job. (a rule that I deem arbitrary)

3. Absorption Rules

Aa. $A + A.B = A$ [which I deem false]

Ab. $A.(A + B) = A$ [which I deem false]

Ac. $A + \text{not}A.B = A + B$ [which I deem false]

Absorption Rules paraphrased examples:

Aa. Absolutely White paint plus white and black paint is equal to absolutely white paint. (a rule that I deem false.)

Ab. Absolutely White paint plus white paint plus black paint is equal to absolutely white paint. (a rule that I deem false.)

Ac. White paint plus (yellow paint (or absolutely anything else in the universe)) plus black paint is equal to the sum of black and white paint.

(a rule that I deem refuted as the minimum error in this example results in an outcome that is coloured green. Green is obtained from a mixture of black, yellow and white. In this example the logic dictates that a grey result is obtained. Green occupies markedly different positions within the optical spectrum than 'grey' for example.)

These three rule sets become dependent on assumptions based in 'a posteriori'

classifications and produce contradictions and combinations of classifications that assume false universal properties and proportions about the 'a posteriori' after the fact world of objects.

The statements of absolute equivalence where $A = A$ after some operation of addition, augmentation or detraction are False.

There are, however, flaws in De Morgan's Laws and the Karnaugh mapping process and these flaws create haphazard loading on circuits and processing because they use e.g. the rules of absorption, refuted above.

'De Morgan's Laws may be used to simplify not-functions having two or more elements.

For example: $A= 2, \text{not}A= -2, B= 3, \text{not}B= -3, C= 4, \text{not}C= -4,$

The Laws state that: the sum of $\text{not}A + \text{not}B$ is equal to the product of $\text{not}A$ times $\text{not}B$:

i.e. $-2 + -3 = (-5)$ is equal to the product $-2 \times -3 = (-6)$

$$\begin{aligned} \text{notnot}A \times \text{not}B &= \text{notnot}A + \text{not}B, = A + \text{not}B (\text{since notnot}A=A) \\ -6 &= -1 &= -1 \end{aligned}$$

Applying de Morgan's Law to the second term gives:

$$\begin{aligned} \text{notnot}A + \text{not}B &= \text{notnot}A \times \text{not}B = A \times \text{not}B \\ -1 &= -6 &= -6 \end{aligned}$$

$$\begin{aligned} \text{Thus, notnot}A \times \text{not}B \text{ plus notnot}A + \text{not}B &= A + \text{not}B \text{ plus } A \times \text{not}B \\ -6 &+ -1 &= -1 &+ -6 \end{aligned}$$

Removing the bracket and re-ordering gives:

$$\begin{aligned} A + A \text{ times not}B + \text{not}B \\ 2 + -6 &+ -3 = -7 \end{aligned}$$

But, by rule 15 the Boolean Rule of Absorption

$$\begin{aligned} \text{i.e. } A + A \text{ times } B &= A \\ 2 + 6 &= 2 \end{aligned}$$

$$\begin{aligned} \text{It follows that: } A + A \text{ times not}B &= A \\ 2 + -6 &= 2 \end{aligned}$$

$$\begin{aligned} \text{Thus: notnot}A \text{ times not}B \text{ plus notnot}A + \text{not}B &= A + \text{not}B \\ \text{i.e. } &-6 &+ &-1 &= &-1 \end{aligned}$$

The above nonsense (into which the values and time were inserted by the editor of this work) was written for the Business and Technical Education Council, the Scottish Technical Education Council, Australian Technical and Further Education Departments, East and West African Examinations Council by authors Mr Bird and Mr May who reside in a technical college in Portsmouth and who thank Mrs Wooley for her typing.

Mathematics 3, pages 90-91, published by Heinemann, London, 1986, ISBN 0-434-90149-0. The standard mathematical and electrical engineering texts at the Heriot

alleged and assumed in electrical engineering that numerous negative commodities when added and compiled within the context of the circuit result in zero accountancy - such negative sums are always in relation to the positive accountancy within the circuitry.

Below is an example of absolutely unaccountable relativity within the energy relationships produced by a three-variable Karnaugh Map. It is called a Truth table. Neither Absolute Zero or Absolute Positive add up to any sum whatsoever, and after Boole's Law's and De Morgan's Rules are applied, there are a great deal of unaccountable energies loose within a circuit thus compiled.

Degrees of functionality of components, therefore, are dependent on the consistency of the material tolerances and of the upper limits of the loading and other aspects of the circuit environment.

A new universal knowledge representation system is presented here called Tripartite Essentialism [T].

The physical theory of language [T]: can be used to orientate object, activity and observed qualities with time.

Three-ness, applicable not only to knowledge representation, but as a physical theory can organize and model knowledge about physical, empirical and semantic systems and the way they relate in such a way that that data and models can become interchangeable between domains: -

So-called 'isomorphism between domains'.

This is a mechanism needed by any autonomous and executive robot or artificial life such that it can react to changes within its changing context.

The problem that prevented robotics from succeeding was that without a good general systems theory, domain specific robots could only relate to specific libraries of labels.

Although Logicism assumed that although it could never be complete and therefore completely logical [Gödel] - it had absolutely nothing to inform the evolving scientific descriptors with - as these descriptors were both 'a posteriori' and arbitrary.

Robotics, therefore, halted at the infinity of labels observed by Turing.

The new [T] system [Hennessey A, 1991-1999], generates limited closed sets - and can also end the problems in artificial intelligence caused by recursion. [c.f. Turing problem]

The system can further enable meaning/semantics etc to be attached to rational numerical processes within octal [Boolean] arithmetic thus enabling an entirely new kind of operating platform for Intelligence and thus reduce the hardware and software burden for a fully autonomous, compact robot or other industrial process.

A META-LANGUAGE AND METAPHYSICS FOR TRIPARTITE PROPOSITIONS

THE PROGRAMMABLE TRE METAPHYSICS

This chapter will present working definitions and models for both simple and complex transactions in the cosmos as Tripartite Propositions.

1. A syllogistic association model.
2. 6-Part Universal Process Model.
3. The Language [HX]
4. Using the Language [HX]
5. Tripartite Knowledge Representation System
6. Tripartite Meta-Language, Process descriptions for the Language [A], 27 essential numbers.

In this section it is shown that big complex e.g. biological systems can be represented by simple modelling strategies.

1. Real world exchanges between complex systems can be first represented by basic syllogisms of the type discussed,

An Organic Transference Model.

The Plant [P] living in the context of a range of optimal humidity [Y] within Purple temperature range.

Uptakes Red and Orange soil water when soil water usually in the seasonal range of [0-11] is between [2-4] but not in the range [6-11]

The Brown and Black soil salt is concentrated in the plant structure and more diluted solutions of Orange salt/nutrition water are conveyed in the conveyor belt of physical evaporation or red soil water into the low concentrations of Purple.

The Syllogism is of the form:

Soil salt Black and Brown plus soil water Red and Orange waters RO, Plant Structure/integrity/atmospheric humidity plus soil water Obtains an integrated plant structure with soil salt. PY In the Context of optimal temperature and humidity :

BB RO
PY RO
BB PY



A syllogistic association model.

In syllogistic form, the propositional variables or conjecture are considered here a 'tautology' as regards the continuity of systemic functions within the perceived empirical associations and labels, attached to the functions being observed. In logic, a tautology is a formula that is true in every possible interpretation. Philosopher Ludwig Wittgenstein first applied the term to redundancies of propositional logic in 1921. A formula is satisfiable if it is true under

at least one interpretation, and thus a tautology is a formula whose negation is unsatisfiable.

In this case Leibnitz's many formats of syllogism are considered arbitrary – and just the presence of the factors that are essentially true are valid and not their order of precedence which is here deemed arbitrary.

The Systemic backbone of Macro M components, that drive the Meso comprised of M and also in regulatory equilibrium with S introduce an equilibrium component, P to the Meso such that the Meso MS drives the emergence of a qualitative asset SP.

The [HX] Syllogism. MACRO MP MESO MS MICRO SP

This singular tautology is non-arbitrary and is not one of the many styles and forms derived by Leibnitz. This is because the ordering and precedence of the lettering is deemed irrational in terms of [T]. As a language of function, [T] does not attend to e.g. banana or orange, or, orange and banana, both being fruiting bodies of biological systems within the botanical class of angiospermae. [Vines and Rees, 'Plant and Animal Biology, vol. 1.', edn.4, pub. Pitman, 1972, ISBN 0-273-25222-4]

The underlying common process is both are fruit, one of a tree, the other of a herb (banana). The archetypal process description for e.g. fruit formation is the same in both cases however.

The fruit itself is divergent also, as neither generic oranges, nor generic bananas, are actually absolutely identical in any logical way.

M in this simplified analogy is the predominantly Carbon backbone of the plant systems Macro, where P is contextual Oxygen, and S is systemic Meso Water. The evolved asset driven by metabolic oxygen is the predominantly water based asset of the plant metabolic system.

i.e. Major Premis MP, Minor Premis MS, Outcome SP.

The order of precedence for lettering and other arbitrary labels is entirely unimportant in [T] descriptions.

The system being modelled could then be rendered onto a slightly more complex archetypal organic 6-part framework, before being described in greater detail with the Logic Language [HX]

6 way algebraic model

These prior examples are capable of being mechanised by a simple algebraic format which can illustrate the relationships of integrity or disintegrity involved in these nested systems and their internal and external exchanges.

This next example is of a simple Homeostatic mechanism dependent on the qualitative aspects of the competitive Micro in its exploitation of the Context from which it is deriving its sustenance.

The organism or fish has three distinct zones, macro, meso and micro and these three zones each have their own inner workings or maintenance to do – endogenous

factors, and each zone has a contribution to make to the whole, external to their own internal mechanistic – exogenous factors.

That is a total of six zones.

Macro exogenous + context
Macro – endogenous
Meso exogenous
Meso endogenous
Micro exogenous
Micro endogenous + site of competition

Later in this Tripartite Essentialism work I will attempt to show how these six factors can be used to produce detailed empirical maps of any domain within this general systems theory. (Six keys systems theory)

The following example illustrates a story about these six zones and how the 'World' refines itself to provide the context in which a system or (fish) may evolve ..

The world, made up of many components representing land; elements and variously derived systems that will contribute to the oceanic system. From this Pedosphere, rivers drain, precipitation of solvents, boundaries of various mineral strata and rocks etc mark the junction or estuary where the concentrated presence of all the Micro-factors that feed the sea is sent to provide the ingredients or context for our fish.

In effect, the coast has acted like a vast membrane between the context of the land and the context of the sea.

From which, the various factors and co-factors useful to the promotion and creation of an evolutionary vacancy for the fish precipitate into the ocean from another exogenous system (Unified at a global organic level by an interdependency of the same components eg. Carbon, Oxygen, Nitrogen, Nutrient Minerals, Water etc.)

The diluting body of water separates from the high concentration of salts, biomass, bases etc injected by the rivers, the substances that will provide in some form, the energy source of the fish.

This input is further processed by other organic and inorganic processes in the ocean - and some factors e.g. salts may be bound up by Calcium Sulphate in Plankton and may be precipitated out of the system as sediment, or, these factors may be consumed and passed, usefully processed, to some other tier of the food chain.

At this stage, the original Microfactors may have found their way into the production of many useful nutrients and co- factors. These may either contribute to the food factors in the Macro of the fish, or may be precipitated out through other cycles less useful to the context and environment of the fish.

A similar complexity of changes is reflected in the algebraic model/organic systems description.

The energy source of the fish is the system of Microfactors supplied by the land, sifted and specialised to augment its life - or death.

Where these factors become the energy source of the fish, the organism itself has a demand for those ingredients and products it has evolved with. The organism is thus surrounded by or has evolved into that immediate environment which can fulfil its needs. (That environment is a Morphogenetic Attractor).

The Macro of the fish, then, supplies the structure and mechanics (Meso) with the nutrients that it is currently evolved to process; and through various energy exchange mechanisms or Meso's/membranes or biochemical pathways, the essence of what is vital for life, evolution and adaptation is conveyed in various stages to the Micro, where those evolutionary assets are employed or cancelled in the struggle with the context environment (Q).

The following narrative relates the behaviour of this model with reference to syntax.

1. The niche that provides the context to contain this Macro organism/organisation/system is represented by various factors or groups of letters.

Those factors directly used/acquired by the organism at its macro are A, M1, M2, M3, SB(E) or food and energy input to the Energy Gathering Mechanism VN of the organism Z.

M1 pays for the maintenance of the fishes (Z) macro - energy gathering mechanism VN. [macro endogenous toll], M2 pays for the passage of nutrients to the meso zone.

2. The Meso - processes E (Evolutionary Advantage) for use at Q its site of competition, its evolutionary goal. The payment of M3 – the [endogenous toll of the meso zone] enables ASB to be facilitated by maintained and working organics such that E - Evolutionary Advantage can then be more easily passed forward from the exogenous mechanisms of the meso zone, [exogenous toll of the meso zone is M4] through the structure and mechanics of the fish to the exogenous mechanisms of the microzone
3. Paying an exogenous toll of (M5) at a membrane of the micro zone (P) for the furtherance of AS(E) to the site of evolutionary struggle.
4. Where E is the processed asset the system can furnish to bridge to, adapt or exploit competitively as far as it can in any context.
5. The toll (M5), paid, mechanism P - the site of the systemic competition of the organism Z is Q. The exchanges bring and enable a carrier mechanism RV(T) to bind AS(E) and convey it down pathways that demand it.
6. Part (T) of RV(T) can only take AS(E) forward if it can locate its binary receptor mechanism RV(Y). T and Y are mutually attracted, however Y is a resource which is only produced when the organism as a whole is competing well with 'exogeny' i.e. the context at factor Q - where Q is a chaotic energy demand that affects the integrity of organism Z.
7. In this chaos at Q, the production of favourable conditions for Z are dependent on natural cycling and variation of Y

8. Thus when Z is doing well, and Q conditions are favourable, Y enables the progress of AS(E).

Y represents a potential for exhaustion and could through its absence debilitate the organism to a state of disintegrity, making the quality of substance of Z, e.g. maintenance and reserves etc. an important factor in surviving the competitive stress of Q.

Q on the other hand represents the freedom of external factors to interfere with the evolution of a system.

With Y present, AS(E) is taken to and bonded to mechanism W which further enhances RV.

9. The number of exchanges from one mechanism to another represent, here, the increasing complexity which binds and processes, refines and directs food/energy input into the specialised compartment of the Micro which is interfacing with the environmental competition.

10. 'Food' factor (AS) is then expended to convey (E) - Evolutionary Advantage to the Micro or Assets of the organism - enabling Z to hold its own, And where Z has advantage over Q, it produces Y - its potential for continued survival.

This process of natural selection in terms of increased stress on the umbrella of systemic integrity may be illustrated at work within the algebraic model in the story of the dinosaur .. where supported by the body of energies that comprised the atmosphere and its trophic range - under this umbrella it flourished, finding a tolerable equilibrium between air temperature, body temperature and energy consumption.

The dinosaur lost energy to the atmosphere in an exchange or toll paid at a comfortable rate.

When the climate changed and the air grew colder, the biological identity of the reptile could not support the massive heat loss and the increased toll, which made greater demands on its energy reserves than it could cope with.

With no new equilibrium between the cold weather and the biology of the dinosaur being possible the only other outcome was extinction. I.e. the toll of Q was too much for Z to sustain.

The use of analogy within Tripartite Essentialism is an important tool to renegotiate old scientific models and old data such that they become more relevant and applicable to real life in the 21st century.

These analogies, models, transactions, relationships and processes can be described in further detail with the HX Logic Language.

INTRODUCTION: These operands are the keys to every natural process in every system. They can be platformed on e.g. C++, PROLOG, and even MIDI programming as list structures, velocity and decay form a vital part of field theory and empiricism or within Dc electrical engineering applications such as ORCAD. Characters include the Operands of Sentential and Predicate Calculus – the Languages [L] and [P], The Tripartite Languages [T], and [A] and symbols from the Microsoft Western Keyboard Fontset.

THE LANGUAGE [HX].

01. Unconditional Declarations e.g. If M then P1 where M and P and 1 are the alphanumeric Microsoft Western fontset utilising previously known data and previously agreed rules.

02. £ If M then not Q where not is £. i.e., £Q is not Q

03. >> if M, then it always follows that P1 is predicated, i.e. M >> P1.

04. >= greater than or equal to

05. > greater than

06. <> allegedly not relative [an 'a priori' false premise]

07. <= less than or equal to

08. < less than

09. V or

10. IF if (always means IF and only IF)

11. + and

12. (the start of a list of a cluster of arbitrarily labelled processes that have been measured and agreed to be part of a closely interacting system that is an IPO Box.

13.) the end of a list of a cluster of arbitrarily labelled processes that have been measured and agreed to be a part of a closely interacting system that is an IPO Box.

14. @ All, the universal – absolutely all.

15. # some of

16. = equals – is equivalent to

17. Δt change in e.g. context or time
 Δt (time 1 ... time 2)
18. [X] square brackets enclose an acronym for a previously defined idea.
19. The set of Real numbers (1,2,3,4,5,.....n)
20. The English language letters upper and lower case consisting of (a,b,c,d, ...z + A,B,C,D, Z) such that every letter can be considered to be a process called an IPO box and further instantiated with further IPO boxes if necessary.
 [Microsoft Western 'System OS fontset.']
21. \$ is directly proportional to.
22. \$\$ is inversely proportional to.
23. % is a member of the set X
 e.g. red (R) % X, where X = colours
 R % X = R is a member of the set of X
24. +? positive transference gradient for specified system
 e.g. M, at time1, +?(M) such that large amounts of M will flow down a relative and common structural bridge to lower amounts of M in the system context.
25. -? negative transference gradient for specified system
 e.g. P at time1, -(M) such that changing conditions at time2 have temporarily overwhelmed system activity rendering system bridging activity and feeding input inactive.
26. ? a condition for some transference opportunity that may emerge at an unspecified time, x. because of chaotic context behaviour.
27. ^ a specific temporal qualitative assumption for modelling that specifies at any given time the prevalent and highest values of atomic concentration within the current activity set. It is needed as well as ? because of the interplay and exchange of similar aggregates within the modelling of the object AND the context.
 It will denote and identify the potential for component relativity - either in the modelling of the object or its context. The material fact of physical and chemical intercession between similars absolutely always exists such that there is always a highest concentration of similar aggregate made relative to the lowest concentration of similar aggregate at a given time because of this intercession. i.e. ^Z >> ?Z, the conditions

for relativity 'a priori' exist though may not at this time be active.

(with a social agreement on what is 'similar')

In holistic modelling, the Object and the Context have differing concentrations and differing priorities for the same compound. Thus by identifying where the highest concentrations are within the model - the relativity of exchange can be more easily tracked.

28. $\sim 1X$ where ~ 1 identifies the macro ingredient X

29. $\sim 2X$ where ~ 2 identifies the meso ingredient X

30. $\sim 3X$ where ~ 3 identifies the micro ingredient X

31. [eT 01.. 64] or [eA 001.. 729] are essential numbers e for [T] and [A].

32. t1, t2, t3, . etc where t = states relative interludes of observation.

33. * where $\sim 1X^*$ and $\sim 2X^*$ identifies the same X in 2 etc. in continual contexts of e.g. object, environment, transference etc.

34. !X where transference velocity can be; !3 macro, !2 meso, !1 micro.

35. $\neg X$ where conditions of over-sufficiency are being met for the emergence of a new copy or asset of X.

36. the feeding gradient [$@f$] for systemic (object) growth. [$@g$] i.e. [$@f$] \$ [$@g$] = [+?], a directly related persistent field.

37. the Macro toll gradient. [$@t$], energy for context self defence. [$@d$] i.e. [$@t$] \$ [$@d$] = [+?], a directly related persistent field.

38. the system feeding gradient [$@f$] and the macro toll gradient [$@t$], however, are inversely proportional and directly competitive to the point of mutual exclusion. i.e. [$@f$] \$\$ [$@t$] = [+?]. (inverse power law).

39. English separators for associative listing 1. the comma (,) and 2. the full-stop (.) as end of list.

40. English semi-colon (;) allows for an antecedent bracketed listing of arbitrary labels from social processes in various object and domain libraries.

41. English inverted commas (" X) signify degrees of structural complexity - where "1 is simple, "2 is medial, and "3 is highly complex.

42. =:= Over-sufficiency, such that $(+?X)$, a positive transference gradient for the feeding of system X is of such persistent abundance as to facilitate the emergence of replication or higher degrees of complexity and emergent systemic behaviour.

43. $//\#$ Extraneous, unexpected, migratory, modal competition during: $?, -?, +?$,
e.g. scales of: $\sim 1//\#X, \sim 2//\#X, \sim 3//\#X$, and, $X = (x1, x2, x3 \dots xn.)$

44. $\{G\}X, \{L\}X$: where $\{G\}$ is a global context and $\{L\}$ is a local context relative to some system X.

45. $\text{£\$+}$: the threshold level for systematic change and consistency in material proportions and behaviour.

46. $\%X$: where X is a general systemic organic process in which a matrix of osmotic processes of various relative transference velocities interact in various transactions of various scales and complexities.

47. $\text{=}\%X$: where X is a systemic process of empirically defined normative tolerances, attributes and values.

48. $[SV]$: shuttle value, where an organismic packet of defined ergonomic value (niche) is driven and empowered by large scale changes of state and energy.

In the following description of a living complex system in the Language $[HX]$, Osmosis – a natural and universal process is central.

Field Theory Priorities in Natural Systems.

1. the feeding gradient $[@f]$ for systemic growth. $[@g]$

i.e. $[@f] \$ [@g]$ - a directly related field.

2. the systemic toll gradient. $[@t]$ for context self-defence. $[@d]$ i.e. $[@t] \$ [@d]$

3. the feeding gradient $[@f]$ and the toll gradient $[@t]$, however, are inversely proportional and directly competitive to the point of mutual exclusion. i.e. $[@f] \$ \$ [@t]$

These properties inversely relate as a power law, but are influenced by the upper and lower tolerances of structural activity and interactivity within the atoms, molecules, simples and complexes of the systemic structure in the

context of the modelling processes.

The DNA therefore has to script for and supply its own internal processes [f] faster than it can lose its interface of macro ingredients to the more massively competing macro ingredients [t] within the context. i.e. [f] \$\$ [t]

These energy losses and gains are present at all levels of aggregate scale and interactivity within both the Macrocosm and the Microcosm.

If the feeding gradient slows because of contextual disruptions that cannot be quickly re-supplied to maintain overall systemic integrity, then the organism will fail.

This model using the Language [HX] is built around the use of atmospheric pressure to deliver water to -

the plant biology using the transpiration stream up the xylem caused by leaf metabolism and the osmotic uptake of (biologically) necessary ion aggregates from the soil by centripetal ion activity in shoots and roots.

01. If the context aggregates Q and their changing attributes with time & Q are available as Q to the DNA script propagating to exploit them, then the evolutionary driver from Q that is Z will arrive in the plant system S at time1.

With systemic structures, macro aggregate defences and enforced adaptive tolerances against usual macrotic chaos, and bridging activities with which to exploit the macro intact, the water transport system conveys the ionic packets to the plant envelope and its metabolism.

where (?-S) is the plant seed system and Q = environment aggregates

1a. @ Q >> #Q = ~1S, t1 1d. &t, t2 >> (~1Z = (=:=Z) + ("3Z + !3Z))

1c. t2 = Q[[t]]Z \$ Q[[d]]Z 1d. &t, t3 >> ((?-S) + (+?-S) = (=:=S)

02. The plant system S uses and mutates transport system Z and has successfully incorporated and exploited ?Z in this environmental context. Successful self-assembling aggregate S has enfolded and maintained a Z supply vacuum that exploits the process of evaporation from the tolerances within the soil and vegetation types and the changes in air temperature and pressure.

S has embedded itself in a persistent opportunity between massive scalar differences in the macro aggregates.

Low S in the macro aggregates is feeding the assembly and emergence of high S within the plant because it is being pulled and transported by the greater and more physically abundant and reactive high Z in the macro aggregates across a massive scalar divide to massively

low Z (atmosphere) in Q. 2a. &t, t4 = ((~1Z + ? + &Z) % (Q + &Q)) >>

2b. >> (Z >> (+?S(&Z)) + (+?S(-?Z)))

2c. ~1QZ = (~!3QZ* + ~1SZ*!2) = (+?SZ) 2d. [f] \$ [g]

03. IF context C (atmosphere activity prevalent), where C % Q, and is greater than or equal to biological and physical plant tolerances - Optimum O, then some water Z plus other ion attributes M will be moved into the plant cytoplasm L in the plant system S at time1. 3a. S % (C % Q), t4,

3b. Q = !3Z = ?Z 3c. ((C>= O*) >> ~1+?Z + (~3*!2ZM = L) ~2S* + !3ZS) >>

3d. >> (+?(#Z + #~2M) >> ~2L) >> ~2S*) 3e. >> (&~1Z % !~3SQ, t4)

04. Piggy-backed on the massive scalar processes (e.g. physics and physical energies) interchanging in the groundwater, hydrosphere and aeolosphere, ionic components essential for plant growth and over-sufficiency create the possibility of evolutionary asset or fruit.
 e.g. Plant metabolism: $\sim 1S \gg \sim 3S$, where $\neg S$ in $\sim 3S$ is the process replication description called biological DNA, M = migrating ions, L = cytoplasmic envelope at time n.

i.e. the central systemic manufacturing process of S that creates the subset (s1 .. s3) in order of; macro, meso, micro and also of scale is: $S = (s1, s2, s3)$.

In plants, these processes have primary components of operational capacity that is predicated upon structures utilizing: s1 = protein base, s2 = sugars, s3 = phosphate predicated.
 4a. $Q = \text{=:}MZ, t1$ 4b. $S = (s1, s2, s3)$
 4c. $S + t2 + \text{+?}Q \sim 2M = (L = (\# \sim 3M + \neg S) + Z) = \sim 3S = (\text{?} \neg S)$
 4d. $(\text{?} \neg S) = [\text{@f}] \$ [\text{@g}]$

05. In the ground G, in good conditions, the seeds start to sprout. The emergence of the external structure of the plant, E, where $E \% S$, and includes the superstructure of the foliage F, and xylem X: - is driven by aeolian A, and phototrophic P, dictates.
 Persistence of temperature and light and moisture and low air pressure and low turbulence will produce an over-sufficiency O, (=:), of growth and therefore fruit. ($\text{?} \neg S$).

5a. $IF \sim 1S + (\text{?} \neg S) \% G + (\text{+?} \sim 1Z^\wedge) + (\text{+?} P^\wedge) + (\text{+?} A^\wedge), t1 \gg$
 5b. $\gg (\text{?} \neg S) + \sim 2S + \sim 2Z + (\text{+?} S) + ("1S) = t2.$
 5c. $t2 = ((L = (\#M + \# \neg S) + \sim 2Z)) \$ \$$
 5d. $\$ \$ = (E = (\#A + \#P + \sim 2Z^\wedge + F + \#M) + \sim 3Z)) = t2.$
 5e. $t2, IF (\text{+?} \sim 1Z) \gg (((L = [\text{@f}]) \$ \$ (E = [\text{@t}])) = t3)$
 5f. $t3 \gg (\text{+?} S = (\text{+?} \sim 2Z) + (\text{+?} \sim 3Z)) =$
 5g. $= (\# \sim 2MFs^* + \# \sim 2MXs^* + (\# \neg S (\#s1, \#s2, \#s2), t2) + \#"2S) + \sim 3Z.$
 5h. membranes roots and leaves and relative seasonal velocity
 5h. $t4 = \text{+?} S (\neg s1 \gg s2 + \#s3) + (\#"1SFX + \#"2SFX) + //\#$
 5i. $t5 = \text{+?} S (\neg s1 + \neg s2 \gg s3) + (\#"2SFX + \#"3SFX) + //\#$
 5j. $t6 = \text{+?} S (\neg s1 + \neg s2 + \neg s3) \gg ("3SFX \gg (\text{?} \neg 3S) + IF \text{£} //\#)$
 5k. $t7 = \text{-?} S (\text{£} \text{=:} (s1 .. s3)) + V (//\#)$

06. At the boundaries of various membranes and other transitional zones used in 'osmosis' by aggregates, there is a relatively normative systemic toll to be paid falling within the usual tolerances of the self-regulating and self-replicating physical system.
 e.g. A to B through some common C with the intercession of at least some common D. However, migratory aspects of adjacent chaos can introduce other modalities and scaling conflicts into the object - context relationship.
 i.e. A to B through some common C with the intercession of some D that causes destructive distortion in the systemic structure, t1.
 Although the systemic resistance exists, depending on the degree of physical impact on the systemic defences and tolerances there will be a

gradual shutdown until cessation and de-contextualisation ensues, t3.
e.g. drought. (S = Plant System, Z = Pluvial and Fluvial Water)

$$6a. t1 = (+?~3//\#~2S) + (-?!1~1Z) \quad 6b. t2 = (?~2//\#~1S) + (-?!1~1Z)$$
$$6c. t3 = (~1//\#\text{\$}S) + (-?!1~1Z)$$

07. The Plant System suffers context disruption in its feeding gradient and its metabolic bridging activities and transference gradient are compromised.

Where S = (f1 .. f5), and f1;XXX and Q = (t1 .. t6) and t1;XXX are numeric values; 001 - 999. for the purposes of empirically measuring relative wavelength and frequency for the construction of social information and artefacts.

$$7a. +?QS, t1 \quad 7b. t1 = S([\text{\@f}] \text{\$} [\text{\@p}]) \text{\$} \text{\$} Q([\text{\@t}] \text{\$} [\text{\@d}]) = [\text{\@f}] \text{\$} \text{\$} [\text{\@t}]$$

$$7c. t2 = ~2//\#S \gg S(f1;075, f2;153, f3;125, f4;092, f5;085) + (\text{\text{£}}f2;153)$$

$$7d. t3 = (?~2//\#~1S) + (-?!2~3Z) \quad 7e. t2 = S(f;)(075, 000, 125, 092, 085)$$

$$7f. t4 = ?Q[\text{\@t}] \gg Q(t;)(t1; 150, t2;112, t3; 000, t4; 000, t5; 017, t6; 443)$$

$$7g. t5 = IF "3~3S \gg (~3//\#S \vee ~2//\#S) = (-?~3S)$$

$$7h. t5 = IF "1!1~1S \gg (~1//\#\text{\text{£}}S)$$

$$7i. t5 = "3~3S \gg (f1 + f2 + f3) \text{\text{£}}\text{\text{£}} (t1 + t2 + t3 + t6) = (\&t\text{\text{£}}=:)$$

$$7j. t5 = f;(075 + 000 + 125) = f;200, \text{\text{\$}}t;1:2 = (//\#~1S) = (f;red)$$

$$7k. t6 = ~1S(f;red) \gg (f; tripartite biology domain, massive heating)$$

$$7l. t6 = //\#~1S(f; geo-drought, dehydration rupture, red distortion)$$

$$7l. t0 = f;(075 + 153 + 125) = f;353, \text{\text{\$}}t;1:3 = (+?~3"3!3S) = (f;blue)$$

$$7m. t0 = f;(blue, UV) \gg$$

7m. t0 >> (f; tripartite physics domain, diffuse atmospheric, less plant red into photosynthesis, more blue/yellow and less red/green, greater xanthophyll and less chlorophyll).

$$7n. t7 = IF (+?~3"3!1S) = t1 = (\text{\text{£}}f2;000) \gg$$

$$7o. t7 \gg //\#S = //\#f(\sim 1f + \sim 2f + \sim 3f) = \% Q$$

7p. t8 = ("2~2f2;000) + //\#f \gg (~1"1f2;160) = ?S
7n. The scale of f2 needed by S is nested in the larger ecosystem Q, which feeds (+?) the metabolic meso (~2S) through various layers of filtration and transportation mechanisms ("3 V "2). These eventually substantiate (=:) the emergence of fruit or other replications, (~3S). e.g. [HX] syllogism.

$$7q. t9 = //\#-?£f2[\text{\@d}] + //\#f(\sim 1f + \sim 2f + \sim 3f) + (//\#"2!1Q) \gg \text{\text{£}}S \vee \text{\text{£}}\#S$$

$$7r. t9, IF //\#f;XXX = t;XXX + ~3"3!1S + \text{\text{£}}f2 \gg ?S \vee +?S$$

08. The system having been breached by migratory chaos if sufficiently sturdy, complex, well stored and developed may be able to cope with variable distresses within the new orientations of the context.

If it does or does not, however, is entirely unpredictable and arbitrary, as physical conditions accrue and emerge and de-merge with time and with the influence of more global activities. Some examples of systemic states for S are given below at time13 and intimations for what may or may not be

possible. t13, (8g. - 8x.) for example massive scale velocity transference on massively complex, massively storing systems versus relative damage on similar systems in low scale velocity transference on simple and relatively unfortified systems. A few examples iterate the possibility of complexity and detail within the [HX] ASSEMBLER.

- 8a. $SQ = S([\text{@f}] \$ [\text{@p}]) \$\$ Q([\text{@t}] \$ [\text{@d}]) = [\text{@f}] \$\$ [\text{@t}]$
8b. $t_9 = \sim 2//\#S \gg S(f_1;075, f_2;153, f_3;125, f_4;092, f_5;085) + (\text{£}f_2;153)$
8c. $t_9 = (? \sim 2//\# \sim 1S) + (- !3 \sim 3Z) + (\sim 3//\# + ? \sim 1!"3Q)$
8d. $t_{10} = S(f;)(075, 000, 125, 092, 085)$
8e. $t_{11} = //\# - ?\text{£}f_2[\text{@d}] + //\#(\sim 1f + \sim 2f + \sim 3f) \gg (\text{£}\#S) + (?S) + (+?S)$
8f. $t_{12} = \#S \% \sim 1[\text{@t}]"3!3 \sim 1S + (\sim 3//\# + ? \sim 1!"3Q) + //\#(\sim 1f + \sim 2f + \sim 3f)$
8g. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 1!"1 - ?\text{£}S + (?S) = S \text{ at timeN}$
8h. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 1!"2 - ?\text{£}S + (?S) = S \text{ at timeN}$
8i. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 1!"3 - ?\text{£}S + (?S) = S \text{ at timeN}$
8j. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 1!"1 - ?\text{£}S + (?S) = S \text{ at timeN}$
8k. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 1!"2S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8l. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 1!"3S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8m. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 1!"3S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8n. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 1!"3S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8o. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 1!"3S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8p. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 2!"1S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8q. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 2!"2S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8r. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 2!"3S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8s. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 2!"2S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8t. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 2!"2S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8u. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 2!"3S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8v. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 2!"3S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8w. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 2!"3S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8x. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 2!"3S + (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8y. $t_{13} = \#S + //\#;(\sim 1f) \gg \sim 3S = (?S) V (+?S) V (\text{£}S) = S \text{ at timeN}$
8z. $t_{13} = \#S + \sim 1//\#(\sim 1f) \gg \#S((-?S) V (?S) V (+?S) V (\text{£}S)) = S \text{ at timeN}$
8aa. $t_{13} = \#S + //\#(\sim 2f) \gg \#S((-?S) V (?S) V (+?S) V (\text{£}S)) = S \text{ at timeN}$
8ab. $t_{13} = \#S + //\#(\sim 3f) \gg \#S((-?S) V (?S) V (+?S) V (\text{£}S)) = S \text{ at timeN}$
8ac. $t_{14} = \#S + //\#(\sim 2f) \gg \# \sim 2S = S \text{ at timeN}$

09. Macro Toll Gradient [@t] is an energy toll of previously established physical and social parameters measured in and pertaining to the observed context between time1 and time2.

When contextual disaster strikes though, tolerances within the system break down and release numerous breakdown products from aspects of the system and new environmental context that interfere and mix with and disrupt (or augment) previously working and stable physical relationships.

e.g. $\sim 1//\#S, t_1$. In normative circumstances: Context $Q \$ S \gg S([\text{@d}] \$ [\text{@t}])$

In abnormative disruption : 9a. $t_{15} = //\#Q \$ //\#S, \#S \gg = ?S(f_2;153) \text{ at timeN}$

9b. $t_{15} = \text{£}S + (//\#(S[\text{@d}])) = ?S(f_2;153) \text{ at timeN}$

Within the damaged system, possibilities for recombination of simples (n) represent at the damage interface until the unique physical tolerances of the damaged zone are either superseded and disintegrated or useful recombination and structural attenuation can present enough bridging material to repair the systemic defence [@d] such that the feeding gradient from the systemic metabolism can support [@t] the abnormative structural distress.

Two similar but differently scaled systems may fare differently in a chaotic context disruption of similar magnitude. No modelling assertion could be absolutely true in a chaotic universe though.

examples s1 and s2, where s1(mature) + s2(young) % S

s1 = !3ZS(~1X"3~1F"2) mature plant in emergent growing season

s2 = !3ZS(~3X"1~3F"1) young plant in emergent growing season

9a. t14 = // #- ?£f2[@d] + // #f(~1f + ~2f + ~3f) >> (£#S) + (?S) + (+?S)

9b. t14 = #S % ~1[@t]"3!3~1S + (~3//#+?~1!"3Q) + // #f(~1f + ~2f + ~3f)

In this system S, values for fn at; macro (~1fn) = 500 - 1000

meso (~2fn) = 50 - 100

micro (~3fn) = 1 - 10

In the context // #Q, however, disruption at (~1fn) has caused systemic failure such that the velocity of the normative rate of supply is now insufficient to supply enough systemic defences to slow down the rate of systemic disintegration. Some complex systems can still function and retain some damage within their structure.

In the context Q, normatively, the upper and lower tolerances of competition on [@d], lie within the range of [800 - 1200] where [<1000] is prevalent. e.g.

1:10 aggregates in context lie in the range [1001 - 1200]

This 1:10 entropy ratio ~3!S would define normative existence within context Q for S. Also 1:10 aggregates in Q, used by S to make ~1S lie within the range [1 - 499]. In the context // #Q, however, this ratio has changed; e.g.1

Contextual disruption of Q has led from a normative ~3!S; (1:10), to a systemically damaging, ~1!S; (1:100 - 1:1000), tn.

9c. t15 = // #S + fn =<~2f2 + +?[@f] + (#S + ?S) - S(~1//#!1"1fn)

9d. t16 = // #S + fn + fn =<~2f2 + +?[@f] + (#S + ?S) - S(~1//#!1"1fn)

9e. t17 = // #S + fn + fn + fn =<~2f2 + +?[@f] + (#S + ?S) - S(~1//#!1"1fn)

9f. t18 = // #S + fn + fn + fn + fn =<~2f2 + +?[@f] + (#S + ?S) -

9f. t18 = - S(~1//#!1"1fn).

9g. t19 = // #S + fn + fn + fn + fn + fn =<~2f2 + +?[@f] + (#S + ?S) -

9g. t19 = - S(~1//#!1"1fn).

9h. (t14 - tn) = // #SQ + ?[@f] >> #S + // #Q = (#fn=<~2f2,tn) + (#S + ?S) V 9h. (+?S).

9h. t20 = // #S+6(fn),@tn(t+1) >> @fn(+1fn)tn. =< ~2f2.

9h. t20 ~2f2 + (+?[@f] + (#S + ?S) - S(~1//#!1"1fn))

9i. t21 = // #S + 7(fn) + =< (#fn=<~2f2,tn) + (#S + ?S) - S(~1//#!1"1fn)

9j. tn = // #S + 8(fn) + =< (#fn=<~2f2,tn) + (#S + ?S) - S(~1//#!1"1fn)

10. Disruptions in the context // #Q may allow the survival of system S or not - dependent on the nature and magnitude and duration of the systemic de-contextualisation and the durability and complexity of the system.

e.g. X = xylem transport system and F = foliage. s1 = mature, s2 = young.

s1 = !3ZS(~1X"3~1F"2) mature plant in emergent growing season, tn.

s2 = !3ZS(~3X"1~3F"1) young plant in emergent growing season, tn.

10a. tn = (@// #Q >> £S) V (#// #Q >> #S(s1.x));(S,phenotypes, properties.x)

10b. t23 = !1ZS(~1X"3~1F"1), xs1.1;(deluge, mature root and xylem,

10b. t23 = bad foliage).

10b. t23 = !1ZS(~1X"2~1F"3), xs1.2;(deluge, mature root and xylem,

10b. t23 = excellent foliage).

10b. t23 = !1ZS(~1X"1~1F"1), xs1.3;(deluge, mature/decayed root

10b. t23 = and xylem, bad foliage).

10c. t24 = @// #Q = (-?s(1.1 + 1.2)) V (?s(1.1 + 1.2)) + £(s1.3)

10d. t25 = @// #Q!1Z >> S = (£X)x;(deluge, root dislocation, £[@f])

- 10e. $t_{25} = IF @//\#Q = t_{26} \gg (s_{1.2} > s_{1.1}) + (!1 \sim 1Z) + \#(?s(1.2 > 1.1))$
 10f. $t_{25} = IF @//\#Q = t_{27} \gg (s_{1.2} < s_{1.1}) + (!1 \sim 1Z) + \#(?s(1.1 > 1.2))$
 10e. $t_{26} = !1Z@//\#QSs \gg \# \sim 3Q,x;(\text{optimum temperature and light, } \xi[@f])$
 10f. $t_{27} = !1Z@//\#QSs \gg \# \sim 1Q,x;(\text{extreme temperature and light, } \xi[@f])$
 10g. $t_{27} = f_2 \% \&Q = (q_1, q_2, q_3, q_4, Q(1-n), \sim 1Z) > @(\sim 2S + \sim 3S)$
 10h. $t_{27} = \#(\sim 1S) = f_2 \% (q_1, q_4)$
 10i. $t_{27} = @Q \% \&W = (W_1, W_2, w_1, w_2, w_3, w_4 \dots w_n)$
 10i. $t_{27} = W;(\text{tectonics, volcanism, tsunامي}) = \&Q(\sim 1!1\{G\} + \sim 1!1\{L\})$
- 10i. $t_{27} = W;(\text{Richter, Geochemistry, Salinity + Temp}) \gg \$\$[@t]s$
 10j. $t_{28} = W_1 \$\$ W_2 \gg @//Q (q_1 \$\$ q_4) \gg f_2 + (\&\sim 1!1"1Q) + (\#QSs)$
 10k. $t_{28} = (!1W_1 \$\$!1W_2 \gg =:= \{G\}@w + \# \sim \{L\} \gg (q_1 \$\$ q_4)$
 10l. $t_{29} = \# \sim 3\{L\} \gg \# \sim 3(f_2) \gg \#\{L\}Ss = (=:= + ?Ss)$

5. KNOWLEDGE REPRESENTATION

Using 'Tripartite Propositions' the knowledge we have about our system can be represented in its Macro, Meso and Micro format as a prelude to further modelling and programming.

There follows 3 examples [2.1 – 2.3] of the knowledge representation system. This universal knowledge representation system [KRS] can take any idiom comprised of; nouns, verbs and adjectives as; objects, processes and qualities. This [KRS] can be used to describe events at any scale and magnitude whether atomic or cosmic.

This set of examples uses small business and their activity classified with this 3 part semantic system and its aspects called; [object] Macro, [process] Meso, [quality] Micro.

2.1. Arts - Music and Multi-Media

2.2 Industrial Manufacturing - Light Engineering

2.3 Service - Insurance

MACRO. THE PHYSICAL/ATOMIC COMPONENTS OF THESE BUSINESSES ARE AS FOLLOWS.

e.g. 2.1.- MACRO/OBJECT. fiddle, harp, keyboards, studio recording components, sound mixing facility, strings, CD/MP3 duplicator, Digital recorder, P.A. System, Transport, music stand, instrument case, tuner, lights, lighting desk, compressor, pre-amp, effects processor, microphones, stands, computer, software, peripherals etc.

e.g. 2.2 – MACRO/OBJECT. lathe, metals, cutter, sweeper, shop floor clothing, gear and boots, tools, bench, drill, workshop, first aid box, lighting, storeroom, drawing/stencil board and printer, oxy-acetylene torch, 3-D printer, arc, welding gear, trolleys, coolant, polisher/buffer, chemical solutions etc.

e.g. 2.3 – MACRO/OBJECT. car, clothing, suit, PC, mobile phone, hard copy filing system, stationary, photocopier, Office, computer and network peripherals, petrol, audio-visual presentation kit, overhead projector, whiteboard, laptop and modem, office furniture, briefcase, clients, customers, leaflets, potential customers etc.

MESO. THE PRODUCT & MEDIA/PROCESSES AND INFRASTRUCTURE OF THESE BUSINESS 'SYSTEMS'/OBJECTS ARE AS FOLLOWS.

e.g. 2.1 MESO/PROCESS/INFRASTRUCTURE. – albums, Celtic, albums rock, albums dance, albums story, multimedia books on CD on mysticism, hard copy tune books, logic audio recording software, concerts, web, performance and events supplied and tours done by company bands, new midi instruments invented, ambient and meditational video and audio's, technical papers on new musical theories, interactive CD-ROM and multi-media package on Philosophy for Children, secure website for sale of soundfiles and other product.

e.g. 2.2 MESO/ PROCESS/INFRASTRUCTURE. - oil rig parts, ship parts, motor parts, alloy parts to industrial specifications, hard alloy, soft alloy parts, thermophilic alloy, civil infrastructure components turned by spec to order, trawler maintenance, car and lorry structural repair, ad hoc building and roof components designed and manufactured by consultation.

e.g. 2.3 MESO/ PROCESS/INFRASTRUCTURE. - domestic surveys, commercial property surveys, domestic and commercial policies, PEP's, Equity Investment, stock brokerage, actuary and risk assessment, bank and investment portfolios, building society and investment house policies and procedure, capital returns for business and client, Leaflets and advertising packages - multi-media, TV, radio, cinema, etc

MICRO. QUALITATIVE ASPECTS OF THESE PROCESS DESCRIPTIONS

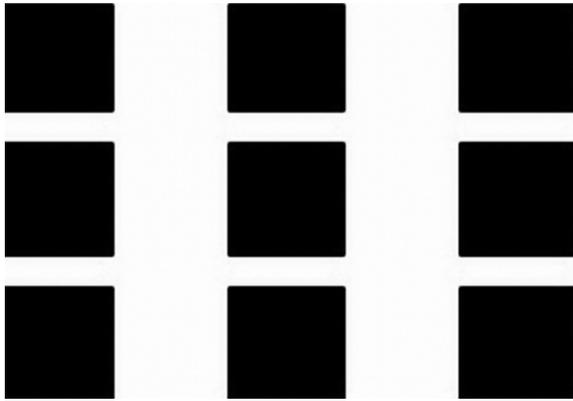
e.g. 2.1 MICRO/QUALITY. - Original music/ various and diverse idioms, original story, cutting edge web site, diverse - one stop catalogue, secure for E-commerce and credit card transactions, high quality international & high tech delivery company used

e.g. 2.2 MICRO/QUALITY. - parts to order, small runs - fast turnaround, good service and maintenance backup, high skill level, One-Off's, diverse projects, great experience

e.g. 2.3 MICRO/QUALITY. - proven track record on investment/stock portfolio, good payout and premium record, speedy and efficient processing of clients needs.

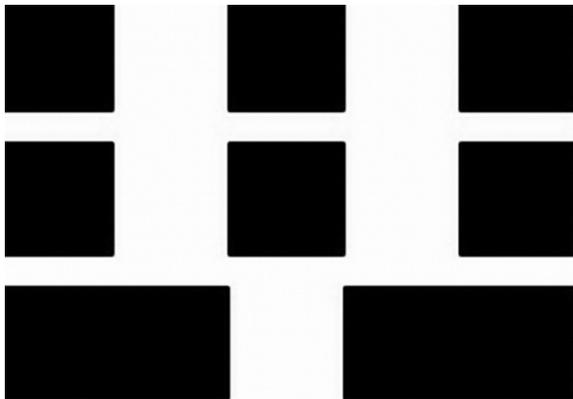
6. Tripartite Propositions as Process descriptions for [TRE] numbers. There follows twenty seven process descriptions for the twenty seven tripartite atoms of the Language [A, (1-27, time1)].

A1. MACRO = D, MESO = D, MICRO = D



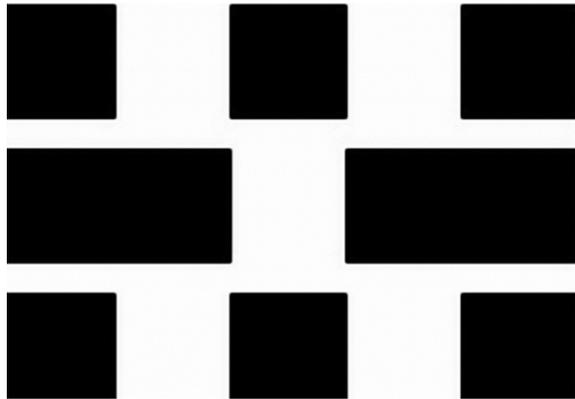
All is in Chaos, there is no integrity to see at this point, but order emerges from chaos and at some time 2, things could systemically change for the better. In the system, all is in flux and there is no relativity or congruence between the context, the object and its activities. There is currently no contextual environment for the development, redevelopment or continuation of any system and the qualitative aspects of evolution within this dissonance have no emergent aspect that can be measured at this time according to current empirical process.

A2. MACRO = D, MESO = D, MICRO = 0



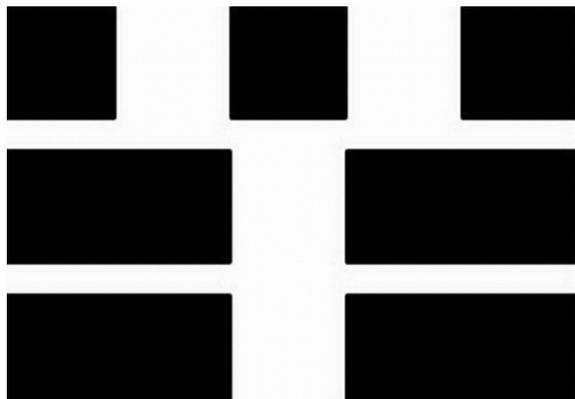
Although there is no viable Macro or Meso in relation to any other system, the evolutionary asset of this system persists although it has no integrity

A3. MACRO = D, MESO = 0, MICRO = D



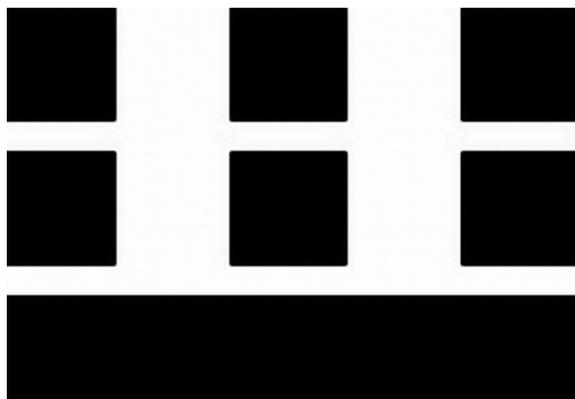
Although an inviable system with no Macro or Asset, the middle/Meso patterns show some process although a disintegrated one.

A4. MACRO = D, MESO = 0, MICRO = 0



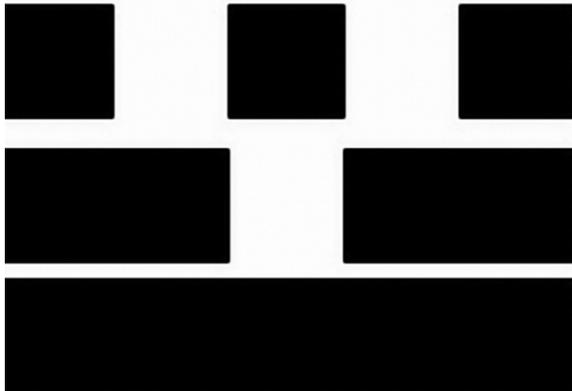
An inviable Macro, but this snapshot illustrates the possibility of something not working at Meso and Micro which could.

A5. MACRO = D, MESO = D, MICRO = 1



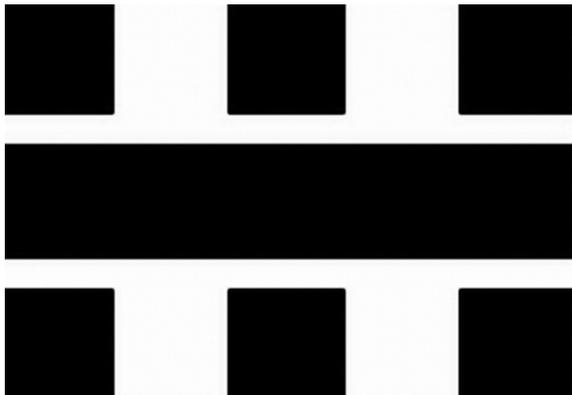
Although an inviable Macro and Meso, the asset, Micro, of this system is integrated and persists.

A6. MACRO = D, MESO = 0, MICRO = 1



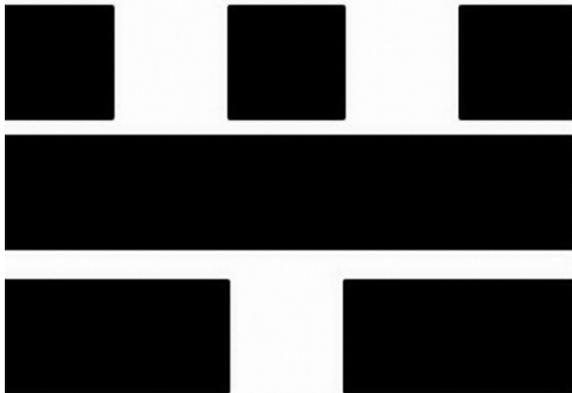
No viable Macro umbrella for this system and the Meso has no integrity to carry out what it could do – but the assets of this system, its Micro persist and are viable.

A7. MACRO = D, MESO = 1, MICRO = D



Although this system is greatly impacted by externals both in its inviable Macro umbrella, and its incapacity, Micro, to persevere under any stress, its Meso mechanics and pattern, though, remain integrated and viable.

A8. MACRO = D, MESO = 1, MICRO = 0



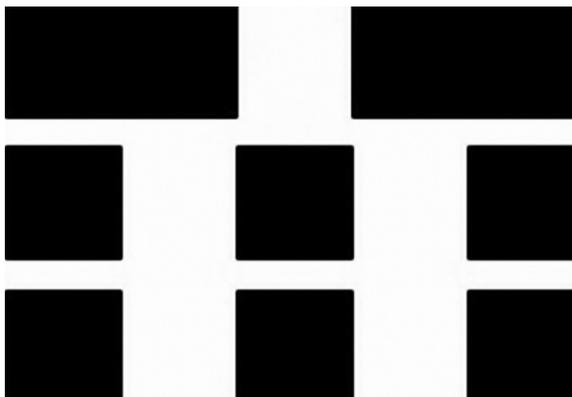
Although this system is greatly impacted by externals both in its inviable Macro umbrella, and its incapacity, Micro, to persevere under some temporary stress, its Meso mechanics and pattern, though, remain integrated and viable.

A9. MACRO = D, MESO = 1, MICRO = 1



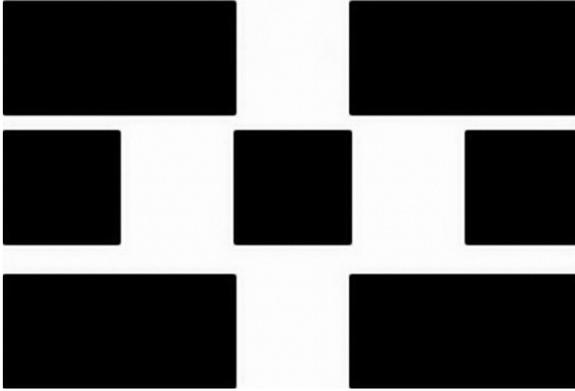
Although the Macro, the systems umbrella, is disintegrated in competitive flux, the mechanics of the Meso and the assets of the Micro persist and act.

A10. MACRO = 1, MESO = D, MICRO = D



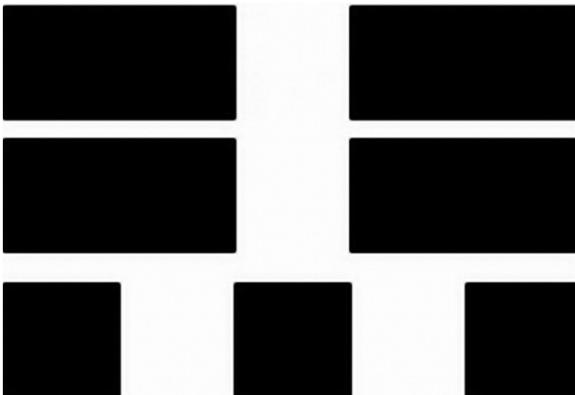
Although the Macro of this system does not have integrity, there is the possibility that at some time² it could change, although neither the Meso or the Micro have any integrated processes whatsoever.

A11. MACRO = 0, MESO = D, MICRO = 0



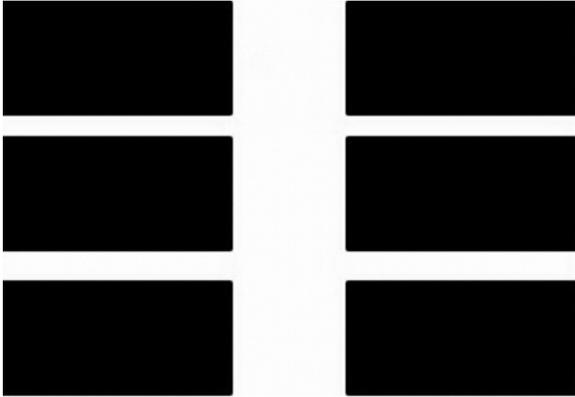
Although this system has no integrity, at neither Macro or Micro, it is the possibility of something integrated, although the Meso, the pattern through which anything of this system could be deployed is in disintegrative systemic chaos.

A12. MACRO = 0, MESO = 0, MICRO = D



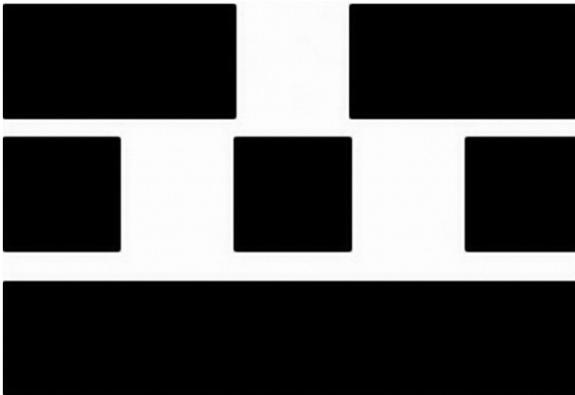
A disintegrated and inviable, broken down system with Macro and Meso inoperative, and unable to deploy any asset at the Micro

A13. MACRO = 0, MESO = 0, MICRO = 0



A disintegrated and inviable system,
all is in flux and there is no relativity or congruence between
the context, the object and its activities.
There is currently no contextual environment for the development,
redevelopment or continuation of any system and the qualitative aspects of
evolution within this dissonance have no emergent aspect that can be
measured at this time according to current empirical process.

A14. MACRO = 0, MESO = D, MICRO = 1



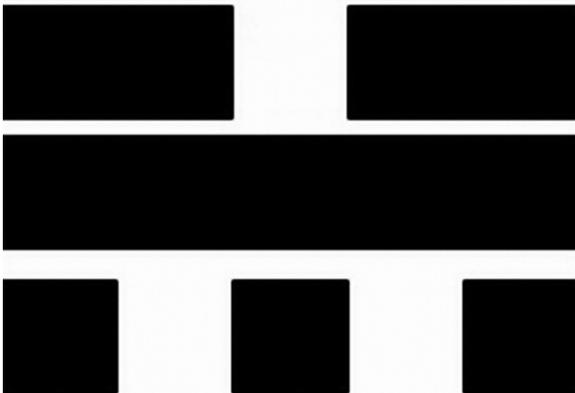
An inviable Macro umbrella, and a totally unusable systemic process from the Meso,
but the Micro assets and fruits of this system persist and are viable.

A15. MACRO = 0, MESO = 0, MICRO = 1



An inviable Macro umbrella, and a disintegrated systemic process from the Meso, but the Micro assets and fruits of this system persist and are viable. The limited integrity of the past has had the qualitative capacity to emerge an asset, the Micro, but at this time now, (presently at timeX), the system has no systemic integrity. The emerged asset, though, having persisted from a previous time interlude is currently of high quality and integrity

A16. MACRO = 0, MESO = 1, MICRO = D



With a disintegrated Macro umbrella, and no capacity for any Micro assets to process within the context, having been imposed on, the Meso or mechanics and pattern of this system are of high quality and persist.

A17. MACRO = 0, MESO = 1, MICRO = 0



With a disintegrated Macro umbrella, and no capacity for any Micro assets to process within the context, they are currently lacking integrity, the Meso or mechanics and pattern of this system are of high quality and persist.

A18. MACRO = 0, MESO = 1, MICRO = 1



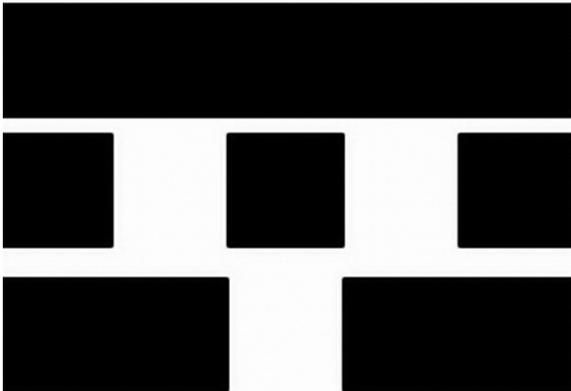
The lack of systemic equilibrium and integrity due to the collapse of the precursor supply to the equilibrium from the aggregates of the context has not interrupted the integrity or persistence of the mechanical attributes within the system at timeX as it continues to emerge asset.

A19. MACRO = 1, MESO = D, MICRO = D



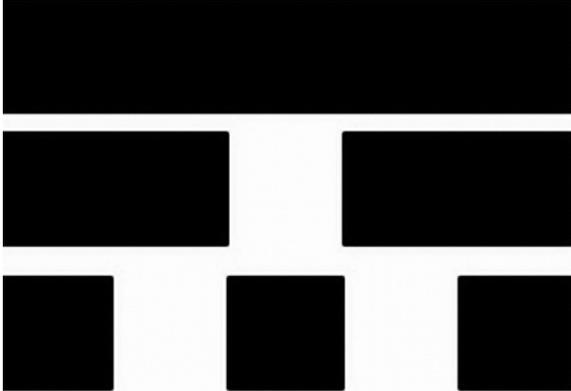
The Macro, umbrella being strong and intact, it is however unable to facilitate any Meso or Micro, it still being under a great deal of existential stress from elements of the context.

A20. MACRO = 1, MESO = D, MICRO = 0



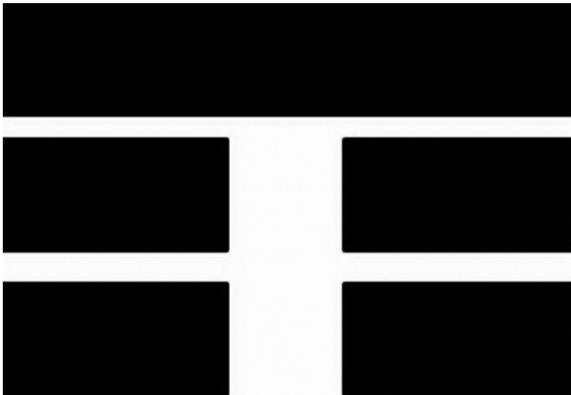
The Macro, umbrella being strong and intact, is however unable to facilitate any Meso or Micro, it still being under a great deal of existential stress from elements of the context. However the Micro assets although inoperative and disintegrated, are there.

A21. MACRO = 1, MESO = 0, MICRO = D



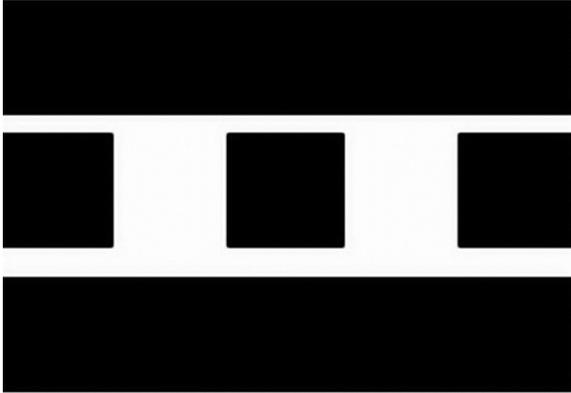
The Macro, umbrella being strong and intact, is however unable to facilitate any Meso or Micro, it still being under a great deal of existential stress from elements of the context. However the Meso mechanics although inoperative and disintegrated, are there.

A22. MACRO = 1, MESO = 0, MICRO = 0



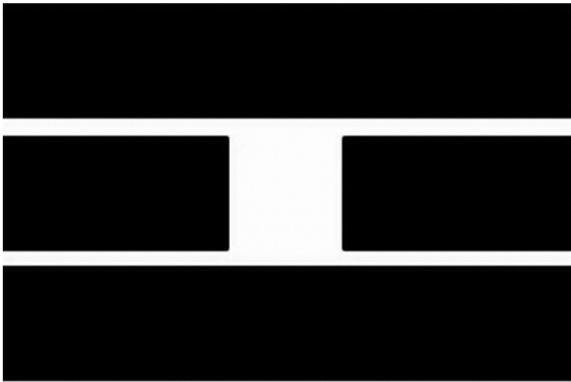
The Macro, umbrella being strong and intact, is however unable to facilitate any Meso or Micro, it still being under a great deal of existential stress from elements of the context. However the Meso mechanics and Micro assets ingredients although inoperative and disintegrated, are there.

A23. MACRO = 1, MESO = D, MICRO = 1



The Macro umbrella although presiding over the inoperative and imposed-on mechanics of its Meso pattern, facilitates the integrated and viable assets of the Micro.

A24. MACRO = 1, MESO = 0, MICRO = 1



At timeX, the present, an integrated umbrella and supply of systemic precursors, Macro, have emerged a qualitative event, Micro - though the mechanics Meso that supplied it were either transparent to observation or have been disintegrated.

A25. MACRO = 1, MESO = 1, MICRO = D



A fully supplied and integrated umbrella, Macro and its systemic processes, Meso are unable to emerge any viable asset Micro at a highly imposed on site of competition.

A26. MACRO = 1, MESO = 1, MICRO = 0



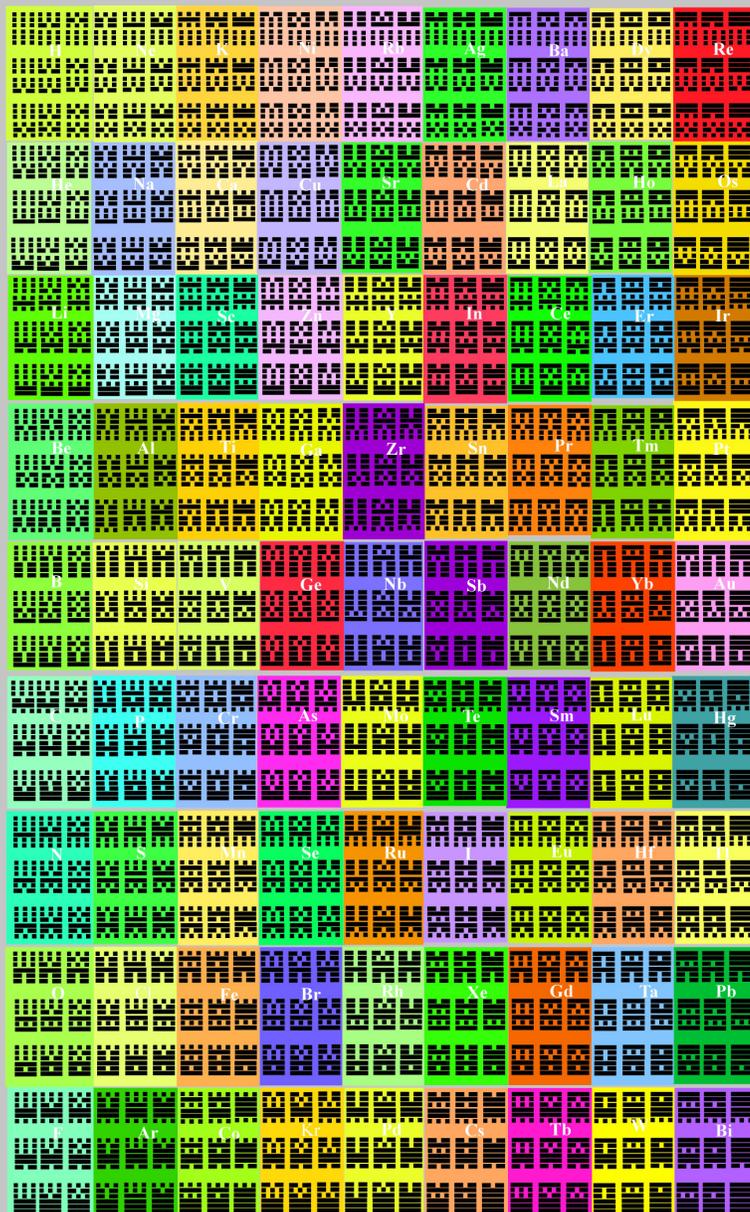
At timeX, the present, the contextual supply of systemic precursors to the emergent mechanics of the Meso and its self-regulating equilibrium is of insufficient gradient, velocity and content to produce a measurable qualitative asset of any integrity under the assumed contextual conditions.

A27. MACRO = 1, MESO = 1, MICRO = 1



At timeX, the present, a fully emergent, self-regulating system, producing assets of measurable qualities through viable mechanical integrity is observed to conform to criteria of systemic success both within and outwith any competing factors from the context

APPENDIX – THE PERIODIC TABLE OF ENERGIES/STABLE ELEMENTS



PERIODIC TABLE OF ENERGIES -
Plichta's 81 Stable Elements and their isotopes/transitions

3.1 Exotic TRE modelling applications in; teleportation, interdimensional trade and travel.

KEYWORDS: HIGH ENERGY PHYSICS, INTERDIMENSIONAL AND LONG RANGE STAR TRAVEL, INTERSTELLAR WARFARE, INTERDIMENSIONAL MACROECONOMICS AND FACTORIAL PRODUCTION, HIGH ENERGY ETHER FARMING AND INDUSTRIAL STANDARDISATION, THE COSMOGENESIS OF ETHER AND UNIVERSES.

'Q. what are the Beings doing with the other ones ? A. looking at them, touching them with something, real fast. Q. you mean, with an instrument of some sort ? . A. Yeah with a stick .. and they're all quiet.' Jacobs DM, 'Alien Encounters - first-hand accounts of UFO abductions', pub. 1994, Virgin, ISBN 0-86369-727-5, p.76

It is assumed here that the Universe and Cosmos is not homogenous.

This chapter deals with atomic mutation in factory production. The Cosmic Ether foams and bubbles and emerges material at all scales and magnitudes - this Cosmic Foam is here denoted 'COAM'. Over vast linear distances atoms and atomicity may change and vary, thus would the component parts of stock and trade making large-scale cosmic trading difficult and dangerous.

A framework model for industrial activity is presented here which will attempt to address some of the issues of intergalactic and intercluster trade.

Starships and their Products as Systems.

It is here assumed that all system components are 'a priori' rated by industry and classified on a scale using essential numbers.

It is also assumed that a hierarchical database designed on TRE precepts can place each magnitude of industrial component relative to the other in increasing degrees of assembly and complexity.

It can be seen from the size of the numbers that [TRE] modelling has enabled a potentially infinite number of untenable circumstances to be modelled where previously no substantial modelling could have been possible.

Differing combinations of static and dynamic component states in complex-system zones produce non-arbitrary limited sums. These logically real numbers are the keys to identifying and classifying system performance as they are derived from the activity of a limited number of power laws at work in the system and in its components.

Every named system component will have 6 keys.

These essential sums convey a logically real picture about the physical state and integrity of the system whose effects are under observation.

Each and every interacting system has 3 zones and 6 key power laws from which all the observable effects are derived and there are 2 equilibria to be maintained by any given system in context.

1. is internal consistency - denoted [f] \$ [g] endogenous
2. is external consistency - denoted [d] \$ [t] exogenous

These two organic equilibria in any system are balanced on the relative performance of 6 power law relationships or 6 fulcra. Successful interstellar travel is dependent on the capacity to pay external energy tolls between massive scalar turbulence in deep space. There are 6 high-energy power-law transactions within any one starship and the starship and its exogeny. These are called the 6 fulcra.

A starship based upon the 6 fulcra model will be capable of interdimensional travel amongst massive energy inconsistencies. Such a starship will enforce and redescribe and reassert its atomic ratios under the wear and tear of high energy stress.

These 6 power law fulcra exist within the organic ontology of technological systems and performance.

These arise from;

1. the activity within the starship core, the endogenous integrity that is made up of; the energy toll required to re-assert the core's material descriptions [g] against the entropy in the materials, and, the toll paid through the core's energy input or feeding gradient, required to supply and re-supply the internal power sources whilst attenuating and filtering [f] unwanted Fx and Fy energy/particle mutations in the externally sourced opaque matter – an intake used to regenerate F1 and Fn shipset within the ship's core.

2. the exogenous material reactivity problems of the starship also create two systemic tolls.

A viable transit route from source port to destination requires a more massive shuttle toll [SV] value e.g. a toll payment on an energy highway within the range (x1 - x3) between (time1 and time2 - 2x). The exocoam tolls and turbulence will reduce the useful range of any venture dependent on the efficiency [d] of the structural reconstruction process and its attendant technologies, designs and applications and any additional exocoam scalar intrusions [t] that have reduced the material inefficiency of the route beyond its normative expectations.

The starship integrity model.

i.e. The Endo or endogenous, internal aspects or, the Exo, or exogenous aspects of the ship in context.

1. regulation of ships core. [f] \$ [g] ENDO

2. regulation of ship's materials in relation to its

contextual exocoam tolls.

Also such ships are only possible by an empirical and industrial understanding of component tolerances.

Here is a strange story about such a ship from 1955

Here are a couple of quotes about alien interdimensional ships from Orfeo Angelucci's Contact Story...

'The voice stated that the disks were powered and controlled by tapping into universal magnetic forces; thus their activated molecules received and converted energy inherent in all the universe. It further explained that the complexities of the apparently simple structure of their disks were so great that to an Earthling a saucer would be considered as having "synthetic brains"...

'Many of the saucers - of highly attenuated densities of matter - were invisible to Earthly eyes and could only be detected by radar.'

"Our disks, or saucers as Earthmen term them, are in your space-time frame as harbingers of mankind's coming resurrection from the living death. Although our disks are essentially aetheric; that is, non-material, they are controlled in such a way that they can almost instantaneously attract substance to take on any degree of material density necessary. Various other types of space craft are now permitted to visit Earth for certain purposes. These are from other worlds and also space islands of various densities of matter. Some are on the borderline between materiality and non-materiality. But all are operated by intelligences highly spiritual in nature. All are on a mission of love to their brothers of the Dark World, but mankind's understanding of their ultimate intent and purpose will only become fully apparent further along in Earth's Time Dimension. We do not say that there are no negatives in the universe who have not attained primitive modes of space travel, but at present Earth is fully protected from these by both cosmic law and the aetheric host."

Orfeo Angelucci's Contact Story
 THE SECRET OF THE SAUCERS STORY
 by Orfeo Angelucci (1955)
http://home.earthlink.net/~dexxxaa/_wsn/page4.html

Empirical detail of the materials and the social complexity invested in and enacted by the ships components (design) within any given set of contextual coam aggregates, economic activities and power expenditure rates must all be taken into account ..

By knowing the full atomic inventory of any assembly it could be recreated. The empowerment of these 'biological self-regulating' aspects of starship ergonomics is enabled by the contextually driven and empirically deduced material descriptions within the command set of navigational instructions. The

relative ratios of atomic aggregates within the ships components must be artificially preserved. Such continual redescription must drive the ships destination/re-materialisation strategies and materials through the transactional and feeding gradients of the coamospheric turbulence that they have committed to.

The ship will consume energy to remain integrated within its journey and will translate itself into the relative atomic components of its destination.

These navigational investments, and efficiency or lack of, can be described in terms of navigational modelling strategies; 'rewards to core', 'rewards to hull', 'excellent tenacity of the temporal input and response to coamospheric changes' of [WN] or social ability number from the set [wn01 - wn16].

[or, 'I cannae hold her - she's breakin' up Captain - ye cannae change the laws O' Physics !!! Chief Engineer Scott, Starship Enterprise]

The [WN] classification numbers (to follow) strategically indicate presence of interdimensional capability, core and maintenance levels, coamospheric recharge opportunity. They also refer to the levels of social and technological impedance or inefficiency in the mechanics of the starship that the society are attempting to drive. This kind of classification system enables material modelling of and deductive analytic strategies for unknown ships and technological performance by isomorphism between domains of previously researched industrial data and models.

Tactical Attack by a small ship of ergonomic specialists towards a hostile corporate target can specifically target various attributes of the 6 fulcra in the 3 ship's equipment zones [core, intake, hull] that produce the many static ergonomic process events in the ships activity profile.

Each of the ships' three zones having their own [ENDO] and [EXO] aspects and each having two vital power law gradients or fulcra - a total of 6 fulcra for the ship.

Attack of a ship by use of massive opaque distortion (spike) can target various functional attributes of the 3 technological zones that have been classified as [ENDO] internal and the integrity of range, persistence and distance or [EXO]. These ship signature outputs convey innate coamospheric derivatives and dependencies, and ratios and material profiles of the occupants and cargo into a common empirical medium of transference.

e.g. metallic ratios, jellyware ratios, liquid ratios, gas ratios, derived from pre-existing cultural data would tend to differ between coamospheres.

It is assumed however that organic lifeforms utilise the transitional elements of their periodic table and that hulls tend to be at the extreme (structural) end of the same periodic table.

The Lifeform's nutrition, the electrovalent instability in its metallic components may not also be reflected in its liquid nutrition and or atmospheric dependencies in gasses.

In an attack situation for example, specific high energy opacity for 'electrical component minerals' belonging to the hull but not primarily its organic contents is fed into and impacted on the target ship.

This distortion of the hull's opaque integrity that supplies and emerges the structures of its known stellar-type minerals [discernible from a surface scan] may destroy the ships computational ability, but not the organic cargo because known biological life-forms are not e.g. in this instance tending to depend on metallicism for their endogenous executive capacity and would prefer instead to ingest 'Romulan Ale' !!

This attack strategy may not of course hold for a shipload of Cyborgs.

Social and coamic structural interactions and reactivity produce many types of process event observable in; materials, fields, coamic distortion, opacity drop-out or spike and temporal displacement.

Every starship therefore has 3 target zones that have 4096 -(16x16x16) different specific functions and make different contributions towards aspects of material integrity, range and self-regulatory efficiency.

Interruption and or destruction of the material assets that enable the 6 power laws (or fulcra) operating within the ships technologies and contents in these 3 technological classifications may enable different types of interstellar piracy to be enacted.

This can be done by working out from the hull signatures what the stellatype periodic table is and determining what the oogenic transitional elements - what the organic lifeform for that ship is and what the heaviest and lightest elements are - their redox potential etc.

e.g. in the human periodic table, the prime components of biological life are carbon and iron within the medium of water and oxygen. Carbon for example is a transitional element that facilitates organic complexity.

It is assumed that the heaviest and densest elements were allocated to the hull, and that the skew of heavy aggregates versus the potential for lighter gases and oogenic gases would render a transitional element profile for the inhabitants (if any).

From there the oogenic processes for both lifeform and both organic and inorganic cargoes may be deduced.

In metallic intelligences requiring power, drive and incentive to empower their sense of nurture, their emergence of consciousness may focus on non-static organic consciousness in the coamosphere in which to research and exploit incentives to fuel perpetuity and nurture.

e.g. Such defensive robotic intelligences may perceive 'organic nurture' as a mineable asset or commodity and not as a social incentive.

In their Bridging Activities [BA] and feeding transferences they may identify and predate on lighter metal macros and lesser-evolved metallic constructs. e.g. social constructionism using aluminium in the human race, as aluminium is utilised to nurture feeding by pots and pans, music etc and the energies of nurturing civilisation can be found around the resonances of such a light metal.

In [HX] Assembler and [T] descriptions and also in natural systems, there are power laws operating within and between these starship-structure zones and

within and between the functionality of the core, its intake and its hull and within the aggregates and technology of the 3 starship zones themselves.

Freighter hull aggregates for example may be of a substantially different frequency and ratios of elements than some cargoes.

It may also be true that not all metals in use in the hull feature as vital components in the technologies of internal atomic accountancy, redescription, power sources and computational logic.

Because of the different use of materials in the 3 technological zones of the ship, core emergence and redescription detritus may be different in aggregate Fn attributes from hull emergence and re-description detritus.

e.g. if core waste descriptions are unusually prevalent - the ship will have been making unusual exertions.

There are a total of 6 power law relativities for starship regulation and functionality that comprise the total activity of the three zones.

In each starship zone there are 2 different aspects of power law relativity at work.

One that directly relates to core, cargo, crew and their material stability and re-growth, [g] and also an opaque manufacturing and coamic input material toll. This directly relates to providing and servicing and processing high energy opaque input and entropy from foreign coamic damage [f]. Also, the reaction and reassembly of the hull production material energy [t] investment worn and torn through turbulent transit over various velocities of known and unknowable coamic emergence, and component dropout, [d] chaos etc.

As any truly efficient interscalar/intercoamic, intercluster/interdimensional starship technology feeds and resupplies itself and grows more resilient, contextually elastic and materially competent in its reproduction of; dark, opaque and light matter ratios, aggregates and tolerances, the less and less it will outlay on normative systemic disintegrality in remote locality. (As it less and less surpasses its structural thresholds for contextual stresses and therefore remains persistently and relatively undamaged.)

[f] core feeding, energy intake, increases and sustains the factorial activity of [g] regeneration, maintenance, storage and growth. The starship draws on and supplies numerous resources to repair economic damage whilst redescription and re-growing cause balance of payment energy disturbances in the hull [t].

These resources are allocated to supply, and pay the toll, to control, repair and regrow/re-emerge systemic hull disintegration, filling gaps in atomic wear and tear against the backdrop of coamic chaos and competition [d]. i.e. where [d] the damage site is caused by emerged detritus worn from the hull aggregates by the context of coamic chaos, turbulence and friction.

As the starship successfully progresses and travels, challenges to its material chemistry, performance and relative efficiency and hence integrity 'naturally' increase with time, and these require systematically researched investments to control.

The more coamic hull investments increase, the better the range and economic utility of the starship, but the more core damage investment deficits that accrue that are unsupplied by technology and research, the worse the economic and social range of the starship. In this model [f] core investment and [d] hull investment are inversely proportional by necessity. Where the core contains the vital investments for long range integrity.

i.e. [f] \$\$ [d].

[Some interstellar society, on the contrary though, may invest in hulls and short stops for exogenous resupply and exogenous continuity and regeneration. e.g. rowing boats versus trident submarines.]

In terms of [TRE] Relativity, the tripartite description of a viable and integrated and efficient starship and a relatively disintegrated or primitive one would produce 16 phases or kinds of static ships physical structure at time1.

[TRE] Relativity description of a Starship performance rating in terms of increasing levels of integration and viability [wn01 - wn16].

The [WN] Starship Rating Scale.

1. macro core design and re-description
2. meso technology & aggregates for re-assembly
3. micro [BA] acquisition, design continuity, adaptive

The Language [WN] at time1 is a set of 16 design activity descriptions that incorporate integrity or dis-integrity of; social performance, bridging activity, technological elasticity, balance of energy payment performance, storage and acquisition, dis-equilibrium in the balance of energies and technologies. In order of preference for the values of the core, first of local (stellar) coamic aggregates then of physical and economic integrity in macrocoamic economies (other superclusters).

[WN] starship rating Tripartite Modelling [T] description for oogenic activity and military-economic productivity.

time1 core internal integrated	core internal disintegrated
time1 assembly internal integrated	assembly internal disintegrated
time1 [BA] core integrated	[BA] core disintegrated
time1 hull external integrated	hull external disintegrated
time1 assembly hull integrated	assembly hull disintegrated
time1 [BA] context viability integrated	[BA] context viability disintegrated

The Language [WN] at time1.

[relative technological ability] the starship ability rating scale is the closed set :

[WN] = [wn01, wn02 ... wn16]

[key to [WN] table: left I - internal or E - external, centre, Core, Assembly, material Viability & bridging Activity, right I - integrated or D disintegrated.]

e.g. wn02

internal core disintegrated
internal assembly disintegrated
internal viability integrated

e.g. wn13

external core integrated
external assembly disintegrated
external vehicle disintegrated

where the human race is wn01 with the space shuttle from NASA.

	wn01	wn02	wn03	wn04	wn05	wn06	wn07	wn08
MACRO	ICD	ICD	ICD	ICD	ICI	ICI	ICI	ICI
MESO	IAD	IAD	IAI	IAI	IAD	IAD	IAI	IAI
MICRO	IVD	IVI	IVD	IVI	IVD	IVI	IVD	IVI

	wn09	wn10	wn11	wn12	wn13	wn14	wn15	wn16
MACRO	ECD	ECD	ECD	ECD	ECI	ECI	ECI	ECI
MESO	EAD	EAD	EAI	EAI	EAD	EAD	EAI	EAI
MICRO	EVD	EVI	EVD	EVI	EVD	EVI	EVD	EVI

The [WN] metatheory is that with strong and persistent technologically accurate resupply/re-materialisation of ship aggregates, access to data and the facilitation of analytic performance - the starship range and utility will grow. Considerations of trade, barter and technological upgrade will drive technological complexity from an inelastic, non-competitive but local material interstellar inefficiency with a loss making technologically redundant venture of [wn05] or [wn06], into a larger and more efficient – deep range - technological and economic performance of [wn15] or [wn16].

The more energy paid by, (and also) the more efficient the technology and research, the most distance can be travelled without technological damage. The aggregates and ratios of the materials used in the technologies supported by local emergence velocities in one sector of a supercluster may not be the same equivalent of reality in another supercluster. There may even be these anomalies in the intergalactic space in one supercluster.

The regular redescription of aggregate ratios dictated to interstellar technology in transit by a technological system that has the capacity to generate the opaque matter material that sustains the physicality of the hull and its contents etc will be of vital economic necessity to prolong the use and the useful range of the ship.

It is of vital economic necessity that there is :-

INTERSTELLAR TRAVEL MODELLING USING MACROCOSMIC OSMOSIS AND SELF-REGULATING TRANSITIONAL ELEMENTAL AND SYSTEMIC COMPLEXITY IN AETHERIC AND SCALAR EXTREMES.

There follows a model of an interstellar trading environment and the kind of material strategies that may be encountered and attenuated by the translation stardrive.

Keywords.

Faraday, Fajan, diffusion, osmosis, compaction, Activity Series, transitional elements, inert elements, homeostasis, complexity, simplicity, galactic superclusters, teleportation, translation, reality threshold responses, Tripartite Relativity [T], export, [HX] Assembler.

Abstract.

The precepts of this paper use the basic rules of physical chemistry and material dependency on the emergence of the immediate physical context and also incorporate technological modelling for planned adaptation of industrial export stock.

Intercluster space contains many very large physical rifts and energy discrepancies of massive scalar distortion and high relative material disruption. The successful negotiation of these obstacles with suitable physical chemistry and technological processes competently intact, would create the industrial and socio-economic potential for the widescale growth of corporate civilisation.

These disruptions; interbubble ruptures – two cosmic bubbles rupturing at their interface, massive high velocity mixing, massively scalar material mutation, etc may have had no previous economic exploration as they may be missing several of the key attributes of an emergent and relative physical and industrially relevant chemical and physical superstructure in their socio-economic assets.

i.e. exported materials could easily mutate and disintegrate

The physical chemistry of these products that would emerge telic self-regulation may be wholly or partly absent in relation to the performance or relative performance of their very distant target markets.

Without getting into the realms of rocket science however, and using the simple physical and behavioural stimuli within known Terrestrial physics and emergence, it is possible to model the construction of a primitive systematic product-diagnosis process for export purposes and also to offer the possibility of a product re-adjustment or patching system to enhance its stability within very distant markets.

Example 1. Translation Stardrive and Patcher.

Socio-economic assets – products from other superclusters may include excessively depleted aetheric ratios e.g.

- a. recognisable but temporally brittle and inconsistently derived matter.

- b. incongruence of the relative size and activity of the transitional elements that fuel and drive self-regulation.
- c. similar atomic activity in both source and destination does not preclude a disparity of; scale, volume and transference velocity and integration when this material is exchanged.

Using appropriate technological modelling, however, it will be possible to identify and work with these material flaws such that an opaque matter field can be woven into the excessively; brittle, plastic or scaled atoms.

This uses the assumption that the opaque matter or ether that supplies physical atoms can be created and recreated.

Material processed and reprocessed by technology and exported in this way could effectively have a sell-by or use-by date on it, this because the artificial material enhancements and its utility would decline after processing as local chaos velocities and gradients in the sales zone re-asserted themselves on the produce.

[Opaque Matter Preservative - 'E numbers']

Artefacts are like live fish in a water container – where the water is the indigenous opaque matter or ether that supplies the artefact. This substance may have a sellby date due to local entropy rates.

Within the material constraints of offworld socio-economic exploration - mutations of the original indigenous matter can occur because of the new aetheric, emergence and aggregate compaction factors within the physical locality chosen for export and sales.

These aetheric inconsistencies can influence the velocities within physical and chemical performance (relative to local material, and furthermore, this could be desirable or undesirable). Inconsistencies in the incorporation of ether-emergence factors, could cause an increase (or desirable decrease) in product sensitivity to previously unimportant constraints on previously dormant attributes of the industrial product.

In a large scale multi-bubble cosmic foam, many physical factors could make export and import of material across vast linear distances economically redundant. These factors include; material inconsistency, morphological and aesthetic response to new stellar and aetheric conditions, and atomic and chronological inconsistency in relation to the target market, new EM field mutations, new aggregate ratios of de-contextual atomic chemistry that introduce factors of non-local material radicalism. Also, the physical product's incorporation of morphological irregularity due to chronological and or physical anomalies caused by drastic reductions in the emergence velocities of the local macrocosm may occur and therefore it may decompress, expand, distort or explode under lesser aetheric compaction pressures.

Whatever indigenous, distant, aggregate profile there may have been in the original F1 factorial stock, therefore, is certain to change once it is moved elsewhere in time and space to be franchised.

It is possible therefore that by moving such stock in an unscrupulous and de-regulated manner over huge distances to places and destinations not designated by the original 'E' process diagnostics that the rates of opaque matter decay within the goods will have been seriously compromised by process dislocation in unsuitable transit mechanisms and amongst unsuitable aggregate ratios.

The issues therefore with such produce are whether the mutation rates would be considered by market standards either desirable or viable or diagnosable. Unmarketable abnormative mutations that are not toxic may be wasteful of corporate resources. However, such end products may only suffer from a lack of market intelligence or scientific knowledge and application.

In socio-economic exportation there will always be issues of undue causative mutation and pathogenic stimuli within produce.

There are two transaction types in any given context that has a physical object or system under observation. These common and relative transactions can be modeled using the [HX] syllogism.

Z = Ether, M = Specific Ions, S = Object, Q = Physical Context, P = System Activity and Utility and the Emerged Social Asset of Scaling Exploitation.

In the aggregate context where: [Z, M, S, P] % Q + [t1 ... tn.]

[HXmicro]	[HXmeso]	[HXmacro]]
SYSTEM PRODUCT	OBJECT SYSTEM	CONTEXT (Q~3S = t0)
~2"MS ~3"MZ, t3	~1Z ~2M	~1Q ~1Z
~2"MS ~3"MP	~2!3Z ~2+?#~S, t1	~2Q ~2M
~3"ZP + (?~3S), ~3"!3MS, tn	~3M~1S, t2	~3M ~3Z, t2

The common process being exploited by 'piggy-back' or enumerated as a shuttle value [SV] between the object system S (product) and the context is the fact that in the translation of massive aetheric emergence Z percolating through the cosmic foam from relatively large scales within the geophysical context, there is a set of necessarily basic, relative, desirable, recognisable and agreeable ratios M, making progress from greater to lesser scales of magnitude. This material product is shuttled and driven by the consistency of the gradient, matter and emergence attributes of; linear, scalar and planar turbulence and emergence rates within the common ether.

i.e. ~2M >> ~3M at time 2

The Plant Biology model as more fully explained elsewhere illustrates the Plant, or other viable object or system, making use of and exploiting a massive scalar difference and gradient within and between contextual aggregates. [a trading or transference opportunity]

In offworld trade and product export, there will also be many such shuttle opportunities for unusual and potentially toxic and unhealthy material distortions. Regular laboratory monitoring of EMF-excretions from product will identify issues within material failure and systemic integrity but would not necessarily identify unknown dormant carriers of resonance patterns within the matter. That will be

because their deviant sizes and unusual energies become an active issuance of toxicity when the export coam destination compaction rates take a greater hold over the supply of ether to the product near the end of its use-by date.

Such problems in new market conditions may or may not be detectable dependent on the nature of industrial intelligence on local materials, or because that in their current chronological context the toxic material resonance is dormant and or designated and classified by certain empirical standards as potentially harmless.

The ongoing quest for material regularity, purity and product consistency in industrial factory output is therefore a very important issue with both consumers and producers.

Given that an 'EMF morphological effects' approach to latent dissonance identification is not necessarily the only and best approach to take and that innate material latency and emergent mutation is a natural fact, then part of the aseptic approach to industry would incorporate new approaches to diagnosis and prognosis as outlined below.

The fact that the product looks good and performs well is not necessarily the only issue in factorial productivity.

As in the Plant Biology Model, toxic recombination can also nest within or be introduced to material transactions in exogenic imported systems. These imported systems have been adapted to and regulated by industry to scalar boundaries and transitions within and between massive physical aggregates and emergence in a cosmically local context.

As has been previously stated, an exported product system has two issues to contend with.

1. is the regulation of its core self. [f] \$ [g]
2. is the regulation of its self in relation to its contextual tolls. [t] \$ [d]

These 2 factors and the 6 fulcra within the 3 zone oogen influence product performance and can be modelled using essential numbering strategies to produce limited non-arbitrary numbers that depict the numbers of events and their effects within each system under scrutiny.

In the oogenic industrial supply of a opaque frequencies to metallic ore for example, in terms of; [T] and [HX], and given the context of an '*a priori*' script in abundance of stability (+?, =:=), the macro, the primary intake of contextual process and energy comes into the ore and its ionisation processes via emergence and compaction and resistance created by existing material pressures.

It then empowers and compacts the meso, the formative processes of the atomic structures, 'shells' etc such that they drive and facilitate the assets of electrovalence and charge, conveying energy from the external aetheric sea to

influence the number of neutrons they form at the centre of the atom, which is the periphery of the tidal pressure.

Tripartite Material & Atomic emergence descriptors.
[HX, TRE]

MACRO	AETHERIC PRESSURES	[@f] \$ [@g] [self]
MESO	RESONANT SHELLS	\$\$
MICRO	PERIPHERAL NEUTRONS	[@t] \$ [@d] [context]

Atomic behaviour e.g. The transitional element Iron, that facilitates redox transitions in carbon-based lifeforms like all transitional (and all) elements, have; macro, meso or micro and innately possess the issue of dual expenditure to contend with. i.e. that of maintaining their endogenous regularity whilst simultaneously attending to exogenous contextual issues.

The size and systemic complexity and weight of atomic elements vary greatly because of the various emergence and compaction strengths of the coam, and so therefore will the issues of incipient material/atomic pathogenicity within mass transit and export of produce.

Taking also a systemic and process strategy rather than solely a morphological one - it is possible to classify emergent atoms whether a potential opportunity for dissonance or not, in terms of their relative degrees of auto-constructive activity and complexity, transference gradients and scale.

i.e. they may not rationally look transitional but somehow they perform an identical function as if they were.

Atomic Emergence Classification Set [N2].

[TRE], [A] : In terms of relative atomic knowledge an Octal classification of dissonant opportunity and proclivity predicts;

This new [T] set, [N2], defines the conditions for aetheric and systematic atomic emergence and the physical states of compaction or Niches in which reside the possibilities or impossibilities for the emergence of; electrons, protons and neutrons.

This is called the [N2] set. N2 = [n'1, n'2, n'3 .. n'8] and illustrates the particle emergence gradient

	material disintegrity				material integrity			
MACRO	ether - low velocity (↔)				electrons - high velocity (↔)			
MESO	low local pressure				high local pressure			
MICRO	Low Neutrons				High Neutrons			
	<i>gases (n'1)</i>				<i>metals (n'8)</i>			
	n'1	n'2	n'3	n'4	n'5	n'6	n'7	n'8
	low ↔	low ↔	low ↔	low ↔	high ↔	high ↔	high ↔	high ↔
	low !	low !	high !	high !	low !	low !	high !	high !
	LN	HN	LN	HN	LN	HN	LN	HN

The [N2] set is different from the [N1] set as the best n8 evolutionary asset of complex biology the micro in the [N1] is a low transference gradient and the exploitation and incorporation of many transferences within as long a periodicity as is feasible.

In the [N2] set however, the best n8, is the high velocity of aetheric emergence is the evolutionary asset and produces the most compaction pressure and the most massive atomic (highly structured and massive) simples.

The most massive heavy metals e.g. unstable, overdriven uranium 238, are not a welcome component of sustainable biological systems and therefore not top of the class of quality biological and complexity assets e.g. C14, Fe56 etc in the [N1] set. The [N1] set in Biology, benefits from the lower velocities of systemic activity that allow for greater complexity of physical and chemical interaction. However, the [N2] set has a greater pool and more diverse range of atomic massive simples [macro] from which self-regulating systems of biological complexity automatically emerge, demerge or re-emerge.

Aetheric components can be deduced from empirical measurement of the 6 key issues within the atomic structures. These measurements come about because of the relatively differentiated and compacted aetheric folding and complexity and gradients within the 3 different systemic zones and their components.

Atomic Mutation in distant products.

The same material toxicity may produce different effects within different product export-market zones within the superstructure of the cosmic foam. Furthermore, different latent material tendencies within external and internal folding may produce similar effects within similar and different market zones within the cosmic foam.

With potentially thousands of effects to observe predicated on the presence of thousands of both known and unknown dissonance profiles - identifying the main issues of primary and secondary toxicity within emergence morphologies under the rational physics of Fajan's Rules become important.

Where each component within the product is rated on an octal scale – it can bring new levels of economic reality to far travel and stock maintenance and control.

The initial toxicity and dissonance structures can create new opportunities for usually harmless material relationships to produce further secondary emergence. This could damage and exacerbate the problems of remedial diagnosis and stock prognosis.

Also new kinds of toxic emergence collaboration may evolve different or greater toxicity with e.g. contextual synergism or antagonism.

However, if the industrial products were evaluated and classified for their innate and initial strengths and weaknesses within local cosmic transference gradients for their toxic emergence possibilities - it can be possible to focus on known areas within product materials and structure, e.g. a specific opaque matter isotope, where pathogenic emergence activity is exploiting the transference velocities within the product.

By comparison of amps ie. isomorphism , similar transference gradients within the products dissonance profile may also be known to be in other products and not usually associated with a pathogenic emergence process. These could also be evaluated by industry for contamination by an exchange of the products isomorphic profile. I.e. (topographical and empirical maps of product function and processes)

Isomorphic profiles on the energy gradients within a product can be compared with similar known profiles in other objects and products. Hence what we know of pathogens and atomic mutations in products with similar energy profiles can be applied.

These physical labels, linguistics and other, semantics, syntax and cultural attributes within deep-range co-operative trade may be widely divergent, but 'chemical isomorphism' between the 3 zones within the material product and other parts of the cosmic foam to which it is directly relative is relative will remain identifiably consistent as an industrial standard.

Irregular emergent chemical changes as ascertained in the product transaction 'isomorphology' data may also be a prelude to either favourable or unfavourable mutation in the product performance.

For example, in a market zone where aetheric foaming and emergence is inconsistent, then product dissonance, transactions and evidence for increased mutation rate and increased product output (either in expected or unexpected ways) may be beneficial i.e. it may be commensurate with increased and additional and unique resale value and systemic product performance in new and different markets.

e.g. A favourable atomic mutation. Where the velocity of emergence and the matrix of osmotic transactions within the imported product (%%X) both in the market zone and in the local utilisation is a constant, and in terms of its 'dissonance profile', the thresholds of import disintegrity remaining at normative levels, product performance is increasing. This is a desirable effect of emergent change, and once current internal and innate systemic factors are excluded, can be ascribed to a new and previously undescribed normative standard of product activity levels over a regulated period of time. Instead of aberrant entropic fission within imported aggregate materials in episodes of higher ergonomic reactivity with the transference gradients of the market context, the import has achieved a more resilient material profile. This is because the latent emergent radicalism within its materials has created a new and more efficient steady state by re-creative fusion in and with its new context.

If the atoms and foam are more than normatively active, demonstrating de-regulated behaviour and a lesser gain or loss in transactional activities, then increased entropy is indicative of a different effect within e.g. the resonance shell (quanta) system and, the neutron and proton recombinatory behaviour in the nucleus.

Atomic Behaviourism has it that high velocity emergent nucleii behaviour in the emergent matter of the aetheric foam powers the facilitative, self-regulatory and emergent response of transitional elements such as iron, copper and carbon, the basic blocks of some life.

In terms of [TRE], and a 'normative' cosmic foam with 'constant' K emergence velocity - emergence input, normative K, to the core of the mutating pathogenic material within the imported stock, its meso and micro of the mutated imported stock can now operate differently. This can produce a good or a bad result. e.g. a relative increase in the stability in atomic structure of a mutated import driven by the spacial and temporal activation of a latent emergence process.

[T] Model of Industrially Emerged Mutation in Chemistry.

			stable	unstable
MACRO	IMPORT CORE	NORMvel, aggregate	K	K
MESO	ATOMIC SHELLS,	shell ratio, interactivity	10%	90%
MICRO	NUCLEII,	neutrons-protons interactivity	90%	10%

Managing Coamological Complexity and relativity in Industrialised Environments.

Interactive coamological/aetheric processes amongst new, established and emergent atomic processes will produce numerous new radical atomic hybrids and new kinds of chemical, chronological and physical interactions.

Emergence Interactivity between the scales, complexity and velocity of the F1 (local) aggregate and product can be modelled for diagnostic purposes in stock using the limited [TRE] set of; core, formative system and periphery. This produced the [N] set of niche numbers [n1 - n8].

Coamological diversity is predicated on the relativity of physical and chemical co-operation between all scales of physical diversity in the ecosystem.

In the model that follows, the core of the F1 (indigenous, local) coamosystem or macro is the most simple and massive scales of aetheric aggregate in the basic F1n and F1x simples. These sustain the more complex and bigger atomic, and complex self-regulating, aggregate emergence cycles of the F1 coam. In the precursor-cursor F1, as the numbers of precursors increase, so eventually do the number of 'products' in the F1 population, until their numbers and high rates of increase through sheer scale of pressure and compaction are eventually halted. E.g. like Boyle's Law in gasses – the pressure is inversely related to the volume, hence here the 'emergence pressure' is constrained by the available volume in light matter.

In this 'cycling model', the cosmically large impedance to [¬] (¬X where conditions of over-sufficiency are being met for the emergence of a new copy or asset of X). is created by a turgid, sizeable relatively bounded and large scale volume of turbulent coam possessing an

energy level and pressure at time1 to the local emergence gradient. [f] \$ [g], time1

In this precursor-cursor F1 'linear model', however, in terms of a more abundant and expanding coam at time1, it would be relatively unrestricted by adjacent constraints, disruption and interference from other bubbles, and therefore macro emergence gradients of coam are perceived as a relatively steady state.

As the F1 precursor supply naturally fluctuates and diminishes in the 'cycling model', there is less abundance of atomic facility and less regulation from the process of compaction as the coam progresses from a flaccid to a turgid steadier state.

i.e. [HX] Assembler:

13.01 ({G1}+{L1}) F1n = [f] \$ [g] \$\$ [t] \$ [d] = -F1{L1}

13.01 time1

13.02 time2, £\$+{G1} = //\$\$ = [?] V [-?] +V £:= F1

13.03 time2, %%{G1} + %%{G2} = //\$\$ = #\$(?)

13.04 time3, {L1} F1n < =%%F1n = (-?)F1n = (-?)F1

13.05 time4, (-?)F1 = #&F1 >> (F1 + F1n){L1} = £#F1

13.06 time4, F1time4 < F1time1 + (time4 >time1(F1n+F1x))

When the coam bubble is flaccid the F1 atomic aggregates then compete more freely and entropically [t] \$ [d] amongst themselves to donate and receive energy. This behavioural change in the local coam is because of reduced compaction pressures and therefore increases the numbers of migrating electrons, protons and neutrons - tending towards but never reaching homogeneity. Also, for example when the number of F1 atoms and their impedance to their emerging precursor supply is reduced at time2, the F1n atomic precursors increase. Precursors are smaller and more resilient to coam pressure and also utilise faster growth and replication strategies relative to the more massive telic F1 molecular emergence. When the precursor numbers increase, they start again to increase and emerge the F1 aggregate volume and abundance.

At this scale in the coamosystem, however, the bigger F1 - F1n relationships of immediate interest in atomic farming and marketing appear more psychologically removed from the bigger coam process.

The more large scale universal or structural coam picture has it though, that for the emergence of desirable attributes and coamological performance to improve, there must be regulation and stability. Within (precursor) F1n physicality, factors such as emergence velocity, compaction pressure, coam boundary stability, telic normalisation must be more consistent and regulated and must become stable enough to facilitate the F1 growth cycle appropriate to the scale of the aggregates being industrially manufactured.

The regulatory persistence of such coam 'growth seasons' in the macrocoam however, have at their root a basic physical fact. That at the highest frequencies of physical emergence and entropy, only the aggregates with the greatest physical tolerances and fastest emergence cycle will grow.

These may be the more simple aggregates and processes.

In the core of the local coamosystem, in 'winter- spring' as it were, frequent new and useful temporal 'stutters' in physical emergence can facilitate the growth

cycles of the smaller atomic aggregates A1, such they become abundant enough to telically emerge another layer of more complex aggregates, A2. This emergence pushes up the A2 numbers to a telically fed threshold [@f] population, tenaciously regulated by sharp inconsistencies [@d] within the changing coam-emergence climate.

As the inconsistencies and sharp contrasts [@d] of emergence velocities, and compaction disruptions decrease, however, and self-regulating telic productivity and complexity increases, the life cycle of more and more complex aggregates A3, can be facilitated by the more consistent coam conditions for energy and telic investments in; atomic assembly, facilitative transitory states and exchange.

THE TRANSLATION STARDRIVE.

Given the technology to; measure, attenuate, generate, translate, input, project and maintain such atomic behaviour in material power systems and their hulls - the process modelled below has the following aspects that would incorporate the aetheric ontogeny above to create a self-regulating and ultimately translatable and portable self-contained and portable cosmic environment.

Flight Modelling Strategy.

1. input ships atomic ratios to regulate and standardise the material properties of context 1 including known material attributes and dominant material attributes, relativities, processes, technological function descriptions and performance.
2. input navigation or destination signatures or some of for context 2
3. use a self-contained onboard power source S3 to generate opaque frequencies to reconstitute the damage to the ships material intakes for exogenous emergence materials.

The onboard power source will need a fixed energy asset or booster to kick start the opacity maintenance generator such that it will keep the material integrity of the hull, its contents and crew relative to their source.

The onboard material regulator [@t] and transport booster power source [@f] may or may not be able to sufficiently recharge or re-integrate its power donor capacities with the ships system. This would depend on factors such as macrocoamic turbulence and the amount of independent artificial translation and re-translation of the ship's material that it may have to sustain without recourse to the local coam during its travel.

If the ships' materiality is compromised and then abandoned in this region of the coam it may be that by compressing sufficient descriptions of that deemed valuable into the FX and FZ descriptions that an analogous record of the F1

processes may be encoded. This would utilise the FZ toxic oogenicity and be later retrieved by a superior ships system. This method may provide acceptable data by back-engineering [TRE] processes within the retrieved material. Interaction between ship and operator can be instructed in [G] and the ship precepts can be manufactured and assembled using [AVOS] such that the ship is a field extension of the pilot.

4. C2 destination frequencies that relate to a C1 frequency or frequencies form some relative quality of transaction gradient.

This could be more or less local and specific at any one time.

Destination frequencies for remote coam, however, may from time to time change from F1 to FY or F1z.

5. A translation barrier or toll [TB] will intrude variably depending on local conditions and will require an investment in the ship's core from the onboard power source.

6. The ship will arrive by this 'bridging activity', [BA] variously empowering resonance down a transaction gradient from higher to lower, at or near its destination aggregate profile of; atomic ratios and emergence pressure, entropy rates and frequencies and atomic entropy ratios, chronological and atomic disparity, known mutation tolerances and intolerances.

Local coam conditions could have mutated such that prevalent oogenesis from AFn to AF1 has stopped, and that a competitive oogenic principle AFx has prevailed over AFn to produce AFX as the primary substrate of the bubble or local coam.

7. The ship will then progressively or not integrate its energy signatures with the destination signatures at time2, allowing the local emergence pressures to drive, mutate and change the ratios of the original source material of the ship.

This chemical activity must be reversible and accurately re-transposable - therefore the onboard power source in the ships core S3 should stay neutral to the locality if emergence purity cannot be maintained and regulated and any problematic Fz or Fy or Fx or other instability is detected in the ships source materials.

[T] Trinary description for the Translation barrier or barriers for long haulage.

Signature1 SHIP	[Translation Barrier TB]	Signature2 DESTINATION
Signature3 CORE	[systemic/temporal e-level]	Signature3 CORE
Signature2 DESTINATION		Signature1 SHIP
C1 known attributes	[TB]	C2 known dominant etc
S1 > S2	S1 <= S2	S2

The ship will travel by building a logical bridge of energy signatures between itself and its destination. The properties of the destinations may change with time, however and some destinations may even be displaced.

The ship will use energy upscaling, creating a higher frequency resonance than the destination frequency set by inputting to and reversing [-?] and simplifying its F1 atomic [micro] ratios and properties, chronology and [dark] atomicity within its

dark matter. This partially or wholly maintained and regulated demergerence stream modelled by ships computer of; [opaque] and or [light] (F1 and F1n) in the C1 ship aggregate ratios (local context) if empirically directed will create an empirical transference gradient of variable quality towards the [opaque] or [light] end of those aggregates of the ship C1(F1, F1n) that resonate with the known opaque or light matters or dark matter ratios and properties of the C2 destination.

Light matter being more stable in these terms (where [TRE] dark matter are the present periodic table of chemistry of 001 - 118 elements.)

[HX] Assembler description of Translation Travel.

time1, context1, ship1, [+?]F1 + F1n
time2, context1, ship1 energy input, [?] F1, F1n, F1y, F1x, F1z, F1p
time2, context1, ship1 destination C2 input >> [-?]C1 >> [?]C2
time3, context1 and context2 >> proximity concentrations of C2
time4, translation toll [@t] between coam and ships core [@f]
time5, context2, ship [?]C1 >> ship [?]C1 V ship [+?]C1 >> [+?]C2
time6, context2, ship1 with C1 core >> [?] V [-?] C2
time7, context2, ship1 with C1 core = context1 V F1, F1n V £F1

Below is a starship model of a ship with its own internal power, using A and B spinning and counter rotating magnetic torque creating an emergence sluice for energies.

The main drive at the 'front' is drawing in coam emergence ratios from the aggregate guidelines that were input into the ship's hull and system signatures by control [G].

The ships internal power P is firing the ships endogenous emergence stream that is maintaining the chronological and material emergence ratios of the ships own energy field, hull and contents. These are homebase context 1 opacity signatures for the ships own internal components.

These signatures also include the material and field membrane atomic repairs that counter entropic friction and damage on the ship's motors. These are processing the input of external aggregates from context 2. This often incongruent and unstable material passing into the ships central drive core will impact on the materials within the ship if not attenuated by the ships own power. Endogenously generated opaque aggregate will cool the entropy reactions in the hull down.

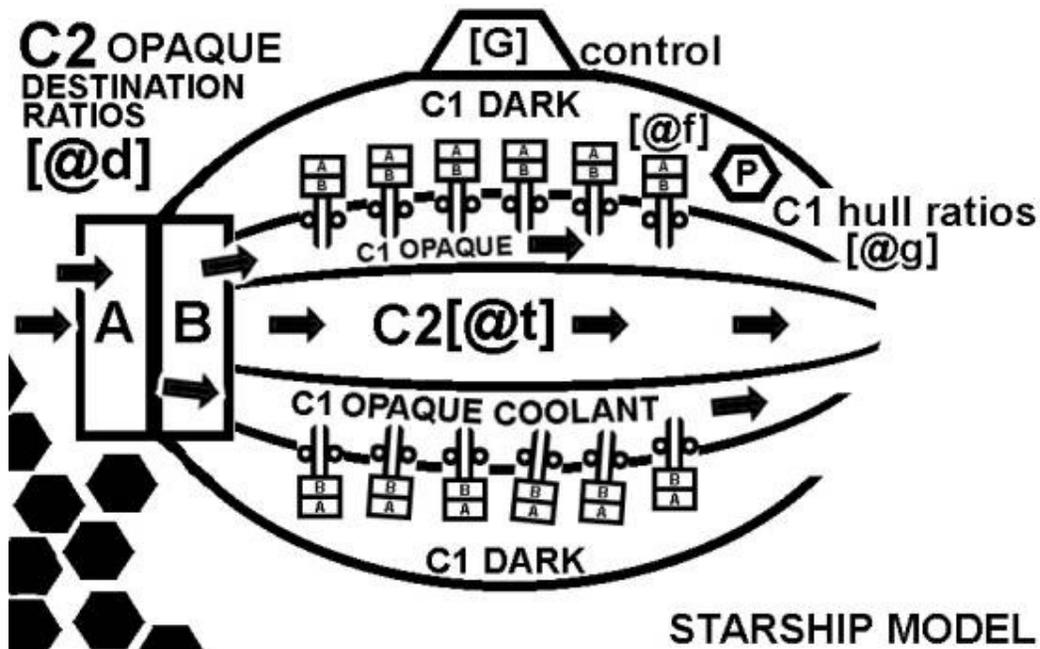
It may be that the ship may or may not be able to replace and reset its own internal opacities from exogenous sources whilst in transit through suitable coam and opaque aggregates conserving power.

The ships destination ratios C2 are being sensitised by the front drive in this diagram, whilst C1 source context ratios are held in place by internal control also.

e.g. Where the set A - F are prevalent mineral aggregate ratios.

C1 source.	C2 destination.
A 10%	A 15%
B 25%	B 10%
C 8%	C 2%
D 44%	D 60%
E 3%	E 1%
F 20%	F 12%

TRANSLATION STARDRIVE MODEL



3.21 ISOMORPHISM MODEL FOR DEDUCTIVE REASONING ABOUT THE UNKNOWN IN ARTIFICIAL INTELLIGENCE, AND USE OF DATA IN TELEPORTATION, STARGATES, SCANNERS etc

The plan in this chapter is to draw a crude sketch which will show the mechanism by which isomorphism between different domains can be achieved, utilising a universal Knowledge Representation System and the underpinning structures and relationships between; objects, their processes and their qualities.

This process will allow a computer to model potentially unknown things.

Isomorphism is the formal mapping between complex structures where the two structures contain equal parts. This formal mapping is a fundamental premise used in mathematics and is derived from the Greek words Isos, meaning equal, and morphe, meaning shape. Identifying isomorphic structures in science is a powerful analytical tool used to gain deeper knowledge of complex objects. Isomorphic mapping aids biological and mathematical studies where the structural mapping of complex cells and sub-graphs is used to understand equally related objects.

Isomorphic mapping is applied in systems theory to gain advanced knowledge of the behaviour of phenomena in our world. Finding isomorphism between systems opens up a wealth of knowledge that can be shared between the analyzed systems. Systems theorists further define isomorphism to include equal behaviour between two objects. Thus, isomorphic systems behave similarly when the same set of input elements is presented. As in scientific analysis, systems theorists seek out isomorphism in systems so to create a synergetic understanding of the intrinsic behaviour of systems. Mastering the knowledge of how one system works and successfully mapping that system's intrinsic structure to another releases a flow of knowledge between two critical knowledge domains. Discovering isomorphism between a well understood and a lesser known, newly defined system can create a powerful impact in science, medicine or business since future, complex behaviours of the lesser understood system will become revealed.

https://en.wikibooks.org/wiki/Systems_Theory/Isomorphic_Systems

Because all knowledge can be laid out as tripartite propositions; (macro, meso and micro) i.e. objects, processes and qualities/outcomes in any given empirical context, then domain databases can be used to build up relatively knowledge-rich multi-object topographical maps, where the highest peaks can be mapped as objects having the highest relative energy values.

Because of the 'energy values' of objects in any domain, Knowledge can then, in TRE, look like topographical and geographical maps.

All objects could be encoded as – or given the relativity of one of only 729 limited states of integrity, thus for example if an Artificial Intelligence inference engine were sifting through a Limited Independent Variety of 'atomic states'

Limited Independent Variety : *'Principle needed in the attempt to develop a logic of probability, in the Treatise on Probability (1921, ch. 22) by Keynes. It assures us that 'the objects in the field, over which our generalisations extend, do not have an infinite number of independent qualities; that, in other words, their characteristics, however numerous, cohere together in groups of invariable connection, which are finite in number'.*

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DOI: <http://dx.doi.org/10.1093/acref/9780199541430.001.0001>

... then there would be no Halting Problem – contrary to the findings of Alan Turing. Alan Turing (allegedly) proved in 1936 that a general algorithm to solve the halting problem for all possible program-input pairs cannot exist.

In computability theory, the Halting problem is the problem of determining, from a description of an arbitrary computer program and an input, whether the program will finish running or continue to run forever.

In TRE, each object in any domain, or scale of relativity, can be seen to be exchanging relative to its neighbouring objects. Each object will be depicted as having a snapshot of one of 729 logical states of exchange and integrity – (the Language [A]) that show where the object has been with its integrity at time1 and where it is now at time2

The perspective here is to obtain a picture of where the object has been at time1 and its state of integrity as it has internally processed the relativities of the context, and thus the time2 exogenous part of its system is what the endogenous zone is currently enabling the system to do presently (exogenously) at time2 in its context.

Moreover, because we are using knowledge in a TRE format there is a lot of extra-stuff for free we can assert about our unknowns e.g. its 6-part organic behaviour, its bridging activity, its tolls and exchanges, its integrity or disintegrity, its empirical tolerances, its scale, its context, and from such things we will have a logical story about its interaction with the context and the quality of its internal and external processes and that of its immediate environmental context.

Every Object has a TRE domain map which lays out the relativity within and between its components, ingredients and processes.

The TRE Domain Map is related to the 6 zones of the Universal Organic Model and e.g. the time1 Trigram could be derived from the three 'endogenous zones' and the time2 Trigram could be derived from the integrity of the three 'exogenous zones' of the object and its system/processes.

At time3, the exogenous time2 TRE picture of the object becomes the objects' new endogenous time1 and the new time3 picture becomes the new time2 for the exogenous performance of the object.

There is a computer-modelling paradigm that maps transfers and exchanges which could be adapted for the purposes of isomorphism in and between domains. E.g. Hydrology or Gestalt Psychology

From 'A Review on Hydrological Models', Gayathri K. Devia, B.P. Ganasri, G.S. Dwarakish it can be seen that hydrological transfer models can map out complex exchanges.

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'Climate change and soil heterogeneity has got an important role in finding out surface runoff. In this paper, we are going to discuss briefly about variable infiltration capacity model (VIC), TOPMODEL, HBV, MIKESHE and soil and water assessment tool (SWAT) model. VIC performs well in moist areas and can be efficiently used in the water management for agricultural purposes. Requirement of large data and physical parameters makes the use of MIKE SHE model limited to smaller catchments. Only a little direct calibration is required for SWAT model to obtain good hydrologic predictions. HBV model gives satisfactory results and TOPMODEL can be used in catchments with shallow soil and moderate topography....

In general, rainfall-runoff models are the standard tools used for investigating hydrological processes. A large number of models with different applications ranges from small catchments to global models has been developed. Each model has got its own unique characteristics and respective applications. Some of them are comprehensive and uses the physics of underlying hydrological processes and are distributed in space and time..... Both meteorological data and soil properties have

got a large influence on the performance of each model. A proper knowledge of subsurface flow pathways and hydraulic characteristics is necessary otherwise it will create adverse effect on model calibration. Various researches are still going on to make better predictions and to face major challenges. It is necessary to improve the existing theories or to develop new theories in order to find the impact of climate change and land use changes on the system.'

In Psychology too, there are topographical 'transfer' models used to explain and illustrate Kurt Lewin's 'Field theory in Psychology', 1939
Lewin, Kurt (May 1939). "Field Theory and Experiment in Social Psychology". *American Journal of Sociology*. 44 (6): 868–896

'The Field Theory Rule' by Dr Jean Neumann
<http://www.tavinstiute.org/projects/field-theory-rule/Jul 2011>

'Using the field theory rule often results in a figure or some other sort of data display to represent the psychological field and the inter-relation of its parts. Lewin and his colleagues (including early social scientists at The Tavistock Institute) favoured 'topological maps'. These egg-shaped diagrams showed crucial inter-related areas, arrows to indicate direction of force toward the goal or away from the goal, and often mathematical equations to indicate possible solutions to problems. Today, additional analytical methods (e.g. visual and qualitative ones) are made possible with information technology.'

'In the early decades of the Tavistock Institute, social scientists keenly worked to diagram the interaction between individuals' perceptions and the forces that push and pull them in different directions both from within and outside themselves. They used an egg-like shape popular amongst field theorists at the time. Known as "topological maps", these eggs are meant to communicate the idea that an individual exists within a current field of forces that need to be navigated in order to act. While psychological complexes from the past may well leave individuals with a salience (known colloquially as "hooks") within their inner world, the likelihood of change in inner states and individual behaviour increases when attention is paid to those forces exerting pressure currently'. Source: Eric Miller Memorial Lecture Society "Close Up" and Our Total Life Space. Neumann, Jean E.

Notice also that Lewin utilized a three-part representation of the person's psychology and their interaction with their environment.

'Lewin believed that changes of an individual's "life space" depend upon that individual's internalization of external stimuli (from the physical and social world) into the "life space". Although Lewin did not use the word "experiential" (see experiential learning), he nonetheless believed that interaction (experience) of the "life space" with "external stimuli" (at what he calls the "boundary zone") were important for development (or regression). For Lewin, development (or regression) of an individual occurs when their "life space" has a "boundary zone" experience with external stimuli. Note, it is not merely the experience that causes change in the "life space", but the acceptance (internalization) of external stimuli.'

Amongst Lewin's conclusions about inter-personal interactions was the idea that both Leveling and Sharpening were part of a process whereby, Leveling appeared to allow for more social interaction and Sharpening appeared to impede social relations.

In a General Systems Theory approach such as TRE – the interaction of objects and people and even electricity can be defined in terms of the impedance of the medium of common context – which if level, flows and transfers could be achieved more easily than if the boundaries between the two systems rose sharply like inaccessible hillsides.

As defined by the early Gestalt psychologists, Sharpening is an exaggeration of differences, Leveling a minimization of differences. In visual-perception research on this topic, when test subjects were presented with an asymmetrical figure, some later recalled it in ways that exaggerated the figure's asymmetry (Sharpeners), while others minimized or eliminated it (Levelers).

http://www.stereophile.com/asweseeit/are_you_a_sharpener_or_a_leveler/index.html#06qVXtV1m6egJV3x.99

In order to extract information about unknowns from a known domain, certain empirical data that gives the unknown, e.g. scale, form, context and process can be laid out – like a window - amongst other relative objects and their context in any domain. This Query Shell ... a 6-part process map – with some empirical markers to give it orientation amongst the macro and meso and micro of some domain and its relative context.

The Query shell will be, relatively speaking, a small window nested somewhere within the empirical parameters of the domain.

At the point when the Query shell is aligned on the domain, amongst its own empirical peaks and troughs – then a pattern of flow between macro, meso and micro unknowns can be deduced by e.g. this domain or by downscaling or up-scaling the empirical query markers into other domains.

Unlike an exchange of water or electrons though, impeding complexity can take the form of many other small relative systems, many of them comparable – like an intervening ecosystem.

We can assume an ecosystem of niches between any A and B in any context or scale.

For example a query about some object or process within the domain of the geographic has us identifying the empirical context of our unknown object, its temperatures, environment etc within the hydrology of a mountain system to river plain transfer which produces a water surplus that drives a complex ecosystem in the e.g. northern Amazon basin.

Between our A and B of our query is a rich and diverse ecosystem in which we have noticed an organism of unknown provenance.

Our measurements tell us that this object is not a mineral or a rock, nor any of the macro aggregates that make the ecosystem of our ABC query.

Because it is an organism, immediately, from TRE principles we get that it has a 6-part process, that it engages in Bridging Activity, and that because it is a certain (larger) mass and mobile, and land-based we can discount oxygen transport

systems in its metabolism that are running on Copper, e.g. chloroplasts and that numerous other classifications of (copper-based) organism can also be excluded e.g. insecta, reptilia, fish, trees etc

To obtain more information about the extent of its niche, e.g. home range, food, etc we would need data about its morphology, legs and muscle, speed, habits e.g. nocturnal, teeth patterns would give us; herbivore, omnivore or carnivore, also data on response to seasons and natural cycles could give us insight into other aspects of its life cycle e.g. migration or hibernation etc

This same sort of ecological argument about the black panther could be empirically scaled down to a story about a 'ghost meson' ... and we could also deduce/speculate from this that 'ghost mesons' are; temporary, active, and part of a bigger aether ecosystem etc. subject to similar chaos laws and behaviours, emergence, entropy, and 'organic-like process'.

In another example for naïve robotics to expound on we have identified an object within a domestic context and inventory which we have a question about its purpose. In a database that includes; TV, cooker, freezer, dishwasher, washing machine, wardrobe, soft furnishings, house, estate, society etc we have a small fairly triangular object with a flat, metallic and steam-vented surface that heats up within the social context of a human dwelling.

Is it for treating foodstuffs ? or for DIY jobs with adhesive tapes etc

Extra contextual information drawn more widely from our knowledge of norms in human western society for example – plus the recognition of an ironing board may help us arrive at the idea that this object is used for treating fabrics to remove creases created during the machine-washing process.

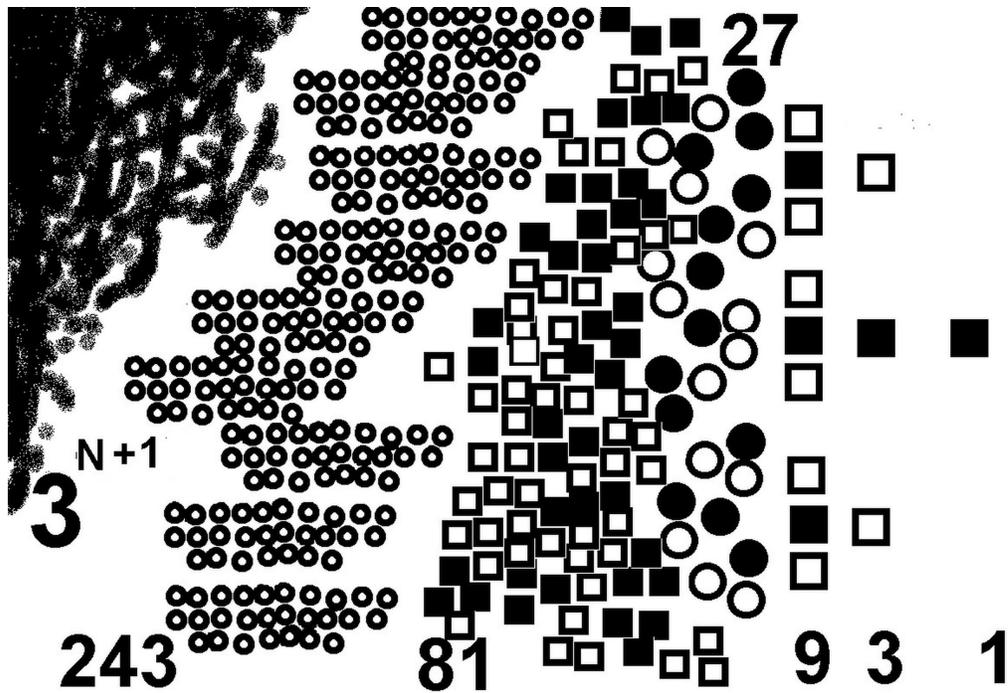
3.22 TRE Mapping of Propositions within the Knowledge Representation System.

Example of Tripartite Proposition – e.g. of the Social Paradigm of Capital.

- the first one there will be a macro and a meso and a micro,
- the second order there will be three of them – a,b,c – i.e. a) a macro of a macro, a meso of a macro and a micro of a macro, then b) the macro of a meso, the meso of a meso and the micro of a meso, and c) the macro of a micro, the meso of a micro and the micro of a micro,

When it gets to another order of magnitude (3^{rd}) of dependencies we have 9 from the 3, e.g. the macro of a macro of a macro, the meso of a macro of a macro, and the micro of a macro of a macro, for one of the triples etc

Then 27, 81 etc



It has been found that as each chain of tripartite propositions lengthens the knowledge encoded becomes rich and diverse somewhere within the 4-7 orders of differentiation.

It is possible that at the 10th – 13th order of 'tripartite differentiation' that the diverse order of knowledge of the 4-7th orders becomes more homogenous.

EPILOGUE

In rummaging through the cupboards of the Theosophical Society in Edinburgh in the 1980's I came across an old yellowed-paper set of notes which appeared to be a degree of the 'Secret School' – a clandestine organisation within Theosophy. Although it was full of obtuse and archaic Hindu terminology, I could see that it was about some tripartite principle, but that on the top of the paper written in green ink and dated from about 1932 was the note .. *'in the event of my death, please destroy.'*

Perhaps our brother pilgrim may today regret that elitism, but surely the tripartite essentialism outlined in this work has been potentially of more use, and we also didn't have to enter into any unnatural agreements to obtain these truths.

Fitting therefore – in my opinion, to conclude with the remark ..

'in the event of my death, please distribute !!'

